Story composition and process analysis using a computer tool based system

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Story composition and process analysis using a computer tool based system

by

Kate Holdich

A Doctoral Thesis

Submitted in partial fulfilment of the requirements for the award of Doctor of Philosophy of Loughborough University

January 2004

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ABSTRACT

The performance of children in writing is a cause for concern: national testing at age 11 indicates that too many pupils underachieve in writing. The purpose of the project outlined in this thesis was to design a computer tool which would assist children aged between 7 and 11 years achieve a higher standard in narrative writing. The project involved four phases of research.

First, a review of the research literature and government documents relating to literacy was undertaken, to establish differences between good and poor narrative writing, differences in the approach of mature and beginner writers, the natural course of children's writing development, effective methods of teaching, ways of assessing writing quality and approaches adopted by other computer applications.

Secondly, a computer tool which scaffolds the narrative writing process was designed. HARRY delivers conversational prompts, stored in Microsoft Access databases, in a conference-like situation. The tool acts as a bridge between the writing approach adopted by beginner writers and the mature approach whilst demonstrating features of successful narrative writing.

Thirdly, a method for automating the assessment of children's written grammar was devised. CHECK TEXT, a computer utility program, provides quantitative analyses of specific grammar features, facilitating comparisons between examples of stories written at Key Stage 2. Both applications use ASP and HTML files, for implementation on a web server.

Finally, two small scale studies were conducted in a primary school - the first to investigate the effects of HARRY's assistance upon children's writing performance and behaviour, and the second to investigate the effects of using the system upon children's subsequent writing performance. The first study showed that when supported by HARRY, the children adopted a more reflective writing approach and they produced more successful narratives, provided they followed the advice. The second study showed that HARRY can accelerate children's writing development - most of the children wrote subsequently better stories and they all felt that they had improved. All the children liked using the tool and thought that HARRY made writing stories easier.

HARRY's limitations are indicated, and potential developments and further investigations are proposed.

Key words: intelligent prompting, primary education, writing models, teaching strategies, feedback, evaluation methodologies
ACKNOWLEDGEMENTS

I would like to thank my supervisor, Professor Paul Chung, for suggesting I undertake this project, for arranging the payment of my part-time fees, for programming the early HARRY prototype, for loaning a laptop during the school studies, for patiently responding to my Emails, and for proof reading my thesis and papers.

Many thanks to Adrian Brown for always making me feel welcome in his classroom, for allowing me to work with children in his class during his daily literacy lessons, and for finding the time to assess some of the resulting stories by awarding them National Curriculum levels. Thanks also to all the children who took part in the project, for enthusiastically dedicating much time and effort to writing stories and talking about their writing experiences with me.

Special thanks to my own children for 'volunteering' to write stories with HARRY during the developmental phase, and for the love and support they gave me throughout the duration of the project, but particularly during the low parts of my roller coaster ride.

I am grateful to the many anonymous referees for taking much time and care when reviewing my papers written during the course of the project. Their positive and constructive comments were enormously helpful at smoothing my bumpy journey from primary school teacher to academic researcher and writer. Their suggestions for how to improve my papers also helped me shape my thesis.

Finally, I am indebted to Richard, my husband, who though "only an amateur programmer", spent many late nights successfully programming the HTML/ASP version of HARRY and CHECK TEXT, and put up with me peering over his shoulder much of the time, trying to understand the mysteries and magic of ASP. Thanks also for never complaining about my complete lack of income or grant during the four years spent on the project and for paying for everything - from the photocopying and binding to the timely half-hour phone call from America and a share of one of the laptops used in the school studies. His constant encouragement and belief in me kept me going - I would not have completed this project without him.
'... it's easy to simulate human thought when it's task-oriented, directed towards a goal, like winning a chess game or solving a mathematical problem, but how to build the randomness, the unpredictability of ordinary non-specialised thought, Idle thought, how to build that into the architecture is a real problem for AI, which this exercise might conceivably help to solve ...'

Thinks ... a novel by David Lodge
(2001, Penguin books, p.8)

'You must learn to fail intelligently. Failing is one of the greatest arts in the world. One fails forward towards success.'

Thomas Edison
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ABSTRACT

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Chapter 1
INTRODUCTION

1.1 Introduction

'Too many pupils are unable to produce sustained, accurate writing in a variety of forms. This is a pervasive weakness in many primary schools which should be addressed more urgently.'

(Ofsted 1998, p.19)

This thesis, written from the perspective of a primary school teacher, contributes to the current search for an effective way to improve primary school pupils' writing performance, by detailing the design and evaluation of a computer based narrative writing system. Implementation of the tool required an understanding of the nature of the problem, differences between good and poor narrative writing, differences in the approach of mature and beginner writers, the natural course of children's writing development, effective methods of teaching, ways of assessing writing quality and approaches adopted by other computer applications.

Three main aspects were considered in the design of the computer tool to help children improve their narrative writing: the approach, story content and grammar. HARRY¹, a web-based 'computer tutor' for narrative writing, offers pupils aged 7-11 years (Key Stage 2) cognitive support, by providing a scaffolding of the mature writing process in a way that is appropriate for children, and imparts expert-like knowledge regarding literary techniques and grammar, in a conference situation. A utility tool, CHECK TEXT, which automates the assessment of children's written grammar and style, facilitating comparisons between stories, was also designed. The objective, quantitative analyses of children's grammar and style supplied by CHECK TEXT, complements qualitative assessments of holistic features. Two separate studies were conducted in a primary school. The first investigation indicated that, with support from the computer tool, children are able to adopt the reflective writing process of mature writers and improve their writing performance. The second investigation indicated that use of the tool can help accelerate children's writing development.

¹ HARRY was inspired by Weizenbaum's (1976) ELIZA, a system that gave the illusion of being able to hold a conversation. ELIZA was named after the character Eliza Doolittle in the play Pygmalion by G.B. Shaw because like Eliza, Weizenbaum's system learned to 'speak', but did not become any smarter. It was the intention of the project that HARRY would become like Eliza's teacher Henry Higgins, who was much smarter than ELIZA. (The name Harry is a variant on the name Henry).
This chapter presents information about international comparisons concerning literacy standards and national levels of pupils' writing performance, the nature of the problem as perceived by pupils and teachers, and the potential benefit of using computers to improve writing standards. The main research questions are itemised. The chapter ends by outlining the structure of the remainder of the thesis.

1.2 Evidence of poor writing standards

1.2.1 International comparisons

Comparative research by, for example, Elley (1992) and Brooks et al., (1996) has indicated that Britain in general is out performed in literacy attainment by countries like Finland, France and New Zealand. In the middle and upper parts of the range of scores, children in England and Wales performed as well as those in countries much higher in the rank of order (Brooks et al. p.13). However, a distinctive feature of British performance is the existence of a long 'tail' of underachievement, notably comprised of boys, which is relatively greater than that of other countries (Brooks et al. p.10). Higher literacy attainment will influence the national economy as a whole. Weaknesses in processing written information can make a workforce less efficient and the companies which employ them less competitive in world markets. Very low levels of literacy are associated with unemployment and crime. Ernst and Young's (1993) report estimated the costs to the country of illiteracy, in lost business, remedial education, crime and benefit payments to be £10 billion per annum.

1.2.2 National levels of writing performance

Since 1995, children's writing performance has been assessed according to National Curriculum Level descriptions. At Key Stage 2, the Levels range from Level 2 to Level 5+, with Level 4 being the average Level expected nationally. Table 2.1 has been constructed to explain the year groups, and corresponding age ranges for both of the Key Stages taught at Primary Schools in England and Wales. The table also explains the range of SATs levels, including the target level associated with each of the Key Stages.
Table 2.1 The year groups, age ranges, range of SATs levels and target SATs levels associated with both of the Key Stages taught at Primary Schools in England and Wales

<table>
<thead>
<tr>
<th>Key Stage</th>
<th>School year</th>
<th>Age range</th>
<th>Range of SATs levels</th>
<th>Target SATs level to be achieved by the end of the Key Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Reception</td>
<td>4-5 years</td>
<td>Levels 1-3</td>
<td>Level 2 (a, b or c)</td>
</tr>
<tr>
<td></td>
<td>Year 1</td>
<td>5-6 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Year 2</td>
<td>6-7 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Year 3</td>
<td>7-8 years</td>
<td>Levels 2-5+</td>
<td>Level 4 (a, b or c)</td>
</tr>
<tr>
<td></td>
<td>Year 4</td>
<td>8-9 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Year 5</td>
<td>9-10 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Year 6</td>
<td>10-11 years</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Examples of stories achieving Levels 1 - 5+ are provided in section 1.2.3 together with a brief assessment explaining why each story would achieve a particular level. Initially, the proportion of 'average' pupils who would achieve Level 4 or above was not identified, but in 1995 and 1996 these levels were reported as the levels expected of the 'typical pupil'. In 1995 less than half of all 11 year olds (48%) reached the 'average' level in English, although by 1998, the figure had risen to 65% (www.ofsted.gov.uk 'Primary Education. A Review of Primary Schools in England 1994 - 1998). The percentage of Key Stage 2 pupils achieving Level 3 and above in English between the years 1995 and 1998 is presented in Figure 1.1.

A concern with the apparent low national standards led the British Government in 1998 to set a 'challenging national target' for pupils' attainment in literacy (www.standards.dfee.gov.uk/ performance). By 2002, 80% of 11 year olds were expected to reach Level 4 or above in the National Curriculum Tests. The National Literacy Strategy (DfEE, 1998) was introduced to help schools achieve this goal.
For the first two years after its launch, the Literacy Strategy made a great impact on pupils’ performances in English at Key Stage 2: there was a steady increase in the percentage of pupils achieving Level 4; from 65% in 1998 to 75% of pupils in 2000. However, a breakdown of the figures revealed that the gains were made in reading, not writing. Whilst 83% of all pupils in the 2000 tests achieved Level 4 in reading, only 55% of pupils reached the same standard in writing. In addition, significantly more girls achieved the required level than boys. Forty eight percent of boys compared to 63% of girls achieved Level 4 or above in writing in the 2000 tests. Disappointingly, the overall results did not improve after the 2000 tests - the percentage of pupils achieving Level 4 or above remained at 75% in both the 2001 and 2002 tests. However, although the overall results for English performance had levelled, the percentage of pupils achieving Level 4 or above for writing, continued to rise from 55% in 2000 to 60% in 2002, whilst the percentage of pupils achieving Level 4 or above for reading, fell from 83% in 2000 to 80% in 2002. Table 1.1 is constructed from published figures (www.standards.dfee.gov.uk/ performance) to demonstrate the breakdown of pupils achieving Level 4 or above in English, at Key Stage 2, between 1998 and 2002.

1Since starting to write up this thesis, the SATs results for 2003 have been published. The overall result was once again 75% of 11 year old children achieving Level 4 or above for English, with 81% achieving level 4 in reading and 60% achieving Level 4 in writing.
Table 1.2 Key Stage 2 English performance at Level 4 or above between 1998 and 2002

<table>
<thead>
<tr>
<th>Year</th>
<th>Category</th>
<th>All pupils</th>
<th>Boys</th>
<th>Girls</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>English</td>
<td>65%</td>
<td>58%</td>
<td>74%</td>
</tr>
<tr>
<td></td>
<td>Reading</td>
<td>71%</td>
<td>64%</td>
<td>79%</td>
</tr>
<tr>
<td></td>
<td>Writing</td>
<td>53%</td>
<td>45%</td>
<td>61%</td>
</tr>
<tr>
<td>1999</td>
<td>English</td>
<td>71%</td>
<td>65%</td>
<td>77%</td>
</tr>
<tr>
<td></td>
<td>Reading</td>
<td>78%</td>
<td>75%</td>
<td>82%</td>
</tr>
<tr>
<td></td>
<td>Writing</td>
<td>54%</td>
<td>47%</td>
<td>62%</td>
</tr>
<tr>
<td>2000</td>
<td>English</td>
<td>75%</td>
<td>70%</td>
<td>79%</td>
</tr>
<tr>
<td></td>
<td>Reading</td>
<td>83%</td>
<td>80%</td>
<td>86%</td>
</tr>
<tr>
<td></td>
<td>Writing</td>
<td>55%</td>
<td>48%</td>
<td>63%</td>
</tr>
<tr>
<td>2001</td>
<td>English</td>
<td>75%</td>
<td>70%</td>
<td>80%</td>
</tr>
<tr>
<td></td>
<td>Reading</td>
<td>82%</td>
<td>78%</td>
<td>85%</td>
</tr>
<tr>
<td></td>
<td>Writing</td>
<td>58%</td>
<td>50%</td>
<td>65%</td>
</tr>
<tr>
<td>2002</td>
<td>English</td>
<td>75%</td>
<td>70%</td>
<td>79%</td>
</tr>
<tr>
<td></td>
<td>Reading</td>
<td>80%</td>
<td>77%</td>
<td>83%</td>
</tr>
<tr>
<td></td>
<td>Writing</td>
<td>60%</td>
<td>52%</td>
<td>66%</td>
</tr>
</tbody>
</table>

The proportion of pupils who achieved the average level for reading and writing in the Key Stage 1 tests (Level 2 or above) for the years 1995 - 1998 is compared (Table 1.2.) to the results of the same pupils who, four years later, achieved the average level (Level 4+) for reading and writing at the end of Key Stage 2 (1999 - 2002) to highlight the progress they made.

Table 1.3 The proportion of pupils who achieved Level 2+ for reading and writing at Key Stage 1 (1995-1998) compared to the proportion of the same pupils who achieved Level 4+ at Key Stage 2 (1999-2002).

<table>
<thead>
<tr>
<th>Key Stage 1 Level 2+</th>
<th>Key Stage 2 Level 4+</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>1999</td>
</tr>
<tr>
<td>Reading 78%</td>
<td>Reading 78%</td>
</tr>
<tr>
<td>Writing 80%</td>
<td>Writing 54%</td>
</tr>
<tr>
<td>1996</td>
<td>2000</td>
</tr>
<tr>
<td>Reading 78%</td>
<td>Reading 83%</td>
</tr>
<tr>
<td>Writing 79%</td>
<td>Writing 55%</td>
</tr>
<tr>
<td>1997</td>
<td>2001</td>
</tr>
<tr>
<td>Reading 80%</td>
<td>Reading 82%</td>
</tr>
<tr>
<td>Writing 80%</td>
<td>Writing 58%</td>
</tr>
<tr>
<td>1998</td>
<td>2002</td>
</tr>
<tr>
<td>Reading 80%</td>
<td>Reading 80%</td>
</tr>
<tr>
<td>Writing 81%</td>
<td>Writing 60%</td>
</tr>
</tbody>
</table>
It is apparent that many pupils who reached Level 2+ for writing at the end of Key Stage 1 did not, as expected, go on to reach Level 4+ in writing at the end of Key Stage 2, although Level 4 was usually achieved in reading. This is partly due to the wide range of attainment covered by Level 2: the level is subdivided into three grades (2a, 2b, 2c), with 2a being the most demanding. Ofsted predicted (www.ofsted.gov.uk 'Primary Education. A Review of Primary Schools in England 1994 - 1998) that many of the children who achieve Level 2c in writing at the end of Key Stage 1 are unlikely to reach Level 4 at the end of Key Stage 2. The poorer results at Key Stage 2 are also the product of the gender gap between the attainment of boys and girls, which is far wider at Key Stage 2 than at Key Stage 1. Underachievement of boys in literacy thus begins in the early years of school with the consequence that many boys transfer to secondary schools with insufficient literacy skills to cope with the demands of the secondary school curriculum.

1.2.3 Examples of stories reflecting the spread of ability associated with Key Stage 2

An example story for each of the National Curriculum Levels (Levels 1-5+) is provided here, together with a brief assessment indicating why each story achieves the level. (The full assessment criteria for each level is presented in Chapter 2, Table 2.1). The stories demonstrate the enormous gap between what some children know about story writing and what they have to learn. However, most children's writing skills at Key Stage 2 are more advanced than the story in the first example, which would achieve Level 1, as 80% of pupils reach Level 2 or higher by the end of Key Stage 1 (Table 1.2), so the gap in knowledge is not as great for all children as these examples suggest.

Level 1

Stranded

We were ready. We got in the car and went. We were going to visit Nan. Just then bang the car stopped. Then it began to snow hard and the snow fell even harder the snow blocked the car and the car could not move then I got out and shouted help but nobody heard me then I got back in the car then a helikopter flew over the car I got out and shouted help and the helikopter threw out a ladder and I climbed up.

Assessment

This writing is about the subject, is structured, contains several events, and makes sense, but the plot is simple with no description of the setting or characters. The story is written in the first person, who is the only character. Punctuation is restricted to the occasional full stop
as the simple connectives 'and' and 'then' are frequently used. This story is well below the Government's minimum target level for the end of Key Stage 2.

Level 2

The Match

One day we played a match against Man united. As we were walking on to the pitch the crowd gave a big roar so we got ready and the other team came on. They wore red shirts. Some of the people gave a cheer and then we started the game. At first no one scored any goals but then James scored. He did a header and it went right in. We ran up to him and hugged him! The captain said that was a good goal. They took their senter they scored because the right middle passed to the left middle. We took our senter but I was just going to shoot when the whistle went and we went to the captain who said "Come on boys lets win the match". The whistle went again and we went back onto the pitch we scored another goal and we had three! But they took their senter we tackled it off them and he scored they took their senter again but I tackled him and we scored. The whistle went four one to us we won by three!

Assessment

This story relates an event in chronological sequence. Basic story language is used such as 'One day', but there is minimal description of the characters and the setting. Some sentences have been demarcated with full stops. Other punctuation marks are also occasionally used. There is little dialogue, but it is punctuated with some inverted commas. Most sentences are simple or compound: the basic sentence connectives 'and' and 'but' are relied upon, but there are the beginnings of complex constructions, for example: 'As we were walking on to the pitch the crowd gave a big roar' and 'At first no one scored any goals but then James scored.' The story consists of mostly simple vocabulary such as 'got' and 'went'. This story is well below the Government's minimum target level for the end of Key Stage 2.

Level 3

Caught stealing apples

Me and my best friend Rebecca were on our way to the Davidson's house to stay for two days with Emma and Donna. On our way we went past Farmer Jighles farm. Rebecca said "let's climb the fence and pick some apples from Farmer Jighles orchard." "No I said look at the sign" it said PRIVATE KEEP OUT. "So what said Rebecca I'm hungry "OK I said but don't blame me if we get told off. "We won't Rebecca said climbing up the fence Give me your hand and I'll help you up". I got up and we climbed a tree and eat an apple from it (Rebecca only) "Yuck this is sour" she said let's climb another tree. OK I said so we did. I sat on an over hanging bough. "UMM said Rebecca these are nice". Yes I said. Rebecca put lots of apples in her pockets I was just about to do the same when Rebecca shouted
"LOOK OUT!" A bull dog was growling at the bottom of the tree. "Oh no," Rebecca said "Let's throw a stick." "YES." It didn't run after it. "What else can we do?" asked Rebecca. "Stay up the tree" I said "Good" Rebecca said so we did. The hours went by slowly Emma and Donna would be wondering where we were the dog was still at the bottom of the tree. He didn't fall asleep. Shhhhhhhh I whispered Oh no Rebecca said. It was Farmer Jighles........... "Here Donald " he called WOOF WOOF barked the dog. Farmer Jighles saw us "Get out of my site and never ever come back can't you read" he shouted. We got down the tree and ran to the fence with the dog close on our heels "HELP" Rebecca shouted. We got to the fence and climbed over. When our Mum found out we weren't allowed any sweets. WE'LL NEVER GO there again I said.

Assessment

This story has a clear beginning, middle and end relating a series of events: two girls are tempted to steal some apples from a farmer's orchard. However, a fierce looking dog prevents the girls from climbing down from the apple tree and as a consequence, they are caught in the act by the farmer. There is some description of the character's feelings. An attempt has been made to indicate the characters personalities - one girl is portrayed as a daredevil who leads her friend into trouble. There are some imaginative details (an overhanging bough, growling at the bottom of the tree, the hours went by slowly, with the dog close on our heels), but the vocabulary is generally unadventurous. About half of the sentences are demarcated with full stops. Dialogue is used and inverted commas usually clarify where speech begins and ends. This story is just below the Government's minimum target level for the end of Key Stage 2.

Level 4

The Den

The house had been rented for four years. Georgia had moved in three months before the summer holiday with her little sister Sally. We were best friends and we made a gang, Sam, Georgia, Sally and I and we had our own meeting place at the back of Georgia's garden. It all started when Sam and I went to Georgie's house after school once. She was taking up her bedroom carpet to put a new one down. We helped her and we found this map of the house we were in and the garden. There was a picture of a fish where our den is so we gave it to Sam, (who's fish crazy). Sam said that it was a pike. We went to investigate and that's where we are now, our den.

The den is underground - you move the slab of rock and climb down the hole. The actual room is massive, it has an old blue rug on the floor and three battered plastic chairs. It also has a small table in it but it's broken.

"Come on Laura, the meeting won't wait forever! We need you to help shift this slab." "Okay, I'm coming!" Scraper - Scraper. "You go first Georgie!" "Hey Sal, what are you doing? You've recked this place!"
"What's up?" I climbed down to find chaos and devastation. The sight that met my eyes was terrible. Sally had pulled out a load of earth from the side and it was everywhere.

"Out!" Insisted Georgie and out she ran, crying her eyes out. I looked at my watch to see it was time for Sam and I to go home so we said bye and went home. The next day we came back to Georgie's house. We went to the den. "Oh no!" Georgie exclaimed. "How does she do it?" Sam asked. The slab was off. We climbed down the hole to see wet soil everywhere. The whole wall was down but as we got closer I made out outlines of shells and teeth.

"Look, another room!" I said excitedly we saw Sally grinning in the middle of the room, she was grubby and she had earth in her hair. There was a new room with shells and teeth of fish, even a stuffed shark! And Sal had found it!

Assessment
This story shows the beginnings of a written style. The plot progresses logically and the story is lively. The writing has a clear beginning, middle and ending, with paragraph divisions. There is significant interaction between the characters. Sentence demarcation is mostly accurate. Inverted commas clarify where speech begins and ends and there is some correct use of commas to separate clauses. Simple and complex sentences have been used, although most sentences are short. There are some well chosen phrases ('The sight that met my eyes was terrible', and 'out she ran, crying her eyes out.') and sophisticated vocabulary (chaos, battered, investigate, insisted, devastation, outlines). This story is the minimum standard expected by the Government of 11 year old pupils at the end of Key Stage 2.

Level 5
Swim For Your Life

"Bring it to me, that's right, come here!" Angeline called to her dogs. It was a peaceful afternoon in Norfolk. The trees were rustling their leaves and the lazy atmosphere of the park went through to Angeline's head. She was throwing a ball to her two dogs. They were cocker spaniels, Flossie and Fifi. Flossie, being the eldest and biggest, always got to the ball before Fifi. Unfortunately, she was more slobbery than Fifi.

"Yuck, why can't you just roll it with your feet you silly dog!" Angeline giggled and affectionately rubbed the spot behind Flossie's ears. She decided to walk near the stream. Her pink T-shirt and beige shorts were sticking to her body but the shade of the horse chestnut trees that surrounded the water was cool and refreshing.

She strode through the long grass until the stream was upon her. Then, picking a cleanish tree to lean on, she sat down and closed her eyes. The cool wind blew across her face, ruffling her hair. The humid air weakened her and she fell asleep.
She awoke to the sound of urgent barking and yapping. The dogs! She leaped up on her feet to see Flossie in the stream. Fifi was on the bank barking for all she was worth at Flossie. A chill went up Angeline’s spine; Flossie already had a cold! She tried not to let thoughts of Flossie with newmonia into her head.

“Swim for your life!” she yelled. Then raced towards the stream. The next things that happened all came in a blur. Flossie going under the water, Angeline screaming, Angeline ripping off her trainers and stepping into the murky water. She groped under the water and picked up her dog.

Wading back to the side, Angeline knew that she would have a lot of explaining to do when she got back, but that would be okay, Flossie was safe, everything was going to be alright. At that moment, she believed herself.

“Aaaaah!” she screamed. Then fell backwards into the water. A piece of pondweed had blocked her way; She let go of Flossie, unconscious.

She awoke, it was dark, she should have been home hours ago. She slowly got up. Then remembering her dogs, she got out. She recovered her trainers and went to look for them.

Two minutes later, she had both dogs and wandered out of the park and back to her house. Her mum was pale and her dad had creases on his forehead. They both hugged her when she came in and asked where she’d been. She explained, looked at her parents and swallowed. It would end up in a row, she knew it.

“Never again!” her father said. “I told you, Sandra, it was a bad idea to let Angeline walk the dogs in the park: she could’ve broken her neck; or worse!”

“Oh your such a worryguts, Pete.” Angeline’s mum snapped, “Just because you weren’t allowed to play out when you were her age; doesn’t mean to say you can spoil her life. Besides if she’s to be a healthy athlete like you intend her to be, she’ll need plenty of fresh air and exercise.”

Angeline ran up to her room, she could still hear her mum and dad’s voices from in the kitchen. She hated it when her parents rowed. Last time, her dad had stormed off and spent practically all their money on the arcade games; he never even won anything apart from a rubber ducky to go in the bath.

When her parents had calmed down, she went downstairs and suggested they washed the dogs. Her parents agreed and they took them upstairs and got out the special shampoo used for dogs only.

That night, in bed, the moonlight shone through a crack in her curtains, like a giant peeping through her window. Angeline lay, on the bridge of sleep. ‘Swim for your life!’ She thought and turned over and went to sleep.

Assessment

This story fits the description of Level 5, displaying elements of Level 6 - the highest levels expected at Key Stage 2. The story achieves Level 5 because the writing is well structured, has a clear beginning that grabs the reader’s attention, characters who interact, convincing dialogue and reported speech, comments on the action and asides to the reader, a detailed description of the setting, a series of events, a twist in the tale, a resolution and a satisfying
ending. The changes in mood and tone are well conveyed. Paragraphs are used correctly and sentences are mostly correctly demarcated. Full stops, apostrophes, speech marks, exclamation marks, commas, colons and semi-colons are used to effect. Vocabulary is sophisticated and varied, successfully integrating adjectives, adverbs, alliteration and onomatopoeia. The writer uses original similes and metaphors to add further depth. Pacing is achieved by patterning, and varying sentence length and word order.

1.3 Children's and teacher's perspectives

Whilst some children find the task of writing stories easy and enjoyable, others find the task daunting and tiring. They encounter feelings of panic when faced with a blank page and worry that they are unable to write effectively. The following questions taken from Channel 4's Homework web site (www.homeworkhigh.co.uk) demonstrate some of the concerns expressed by children when asked to write a story:

• I need to write a story called The Hidden City. Can you give me some ideas please?
• I need an ending to a story about when you are waiting for the bus and you have had some bullies approach you. What can I write?
• How can I write an interesting and unusual story?

Czerniewska (1992, p. 93) records typical complaints made by teachers about the quality of their pupils' story writing, their approach to the task and the slow progress made by children with writing:

• They always write the same thing.
• The writing begins well, but usually collapses half way through.
• When children redraft, nothing much changes apart from a few spelling errors.

Czerniewska points out that it is no longer assumed that a failure to write well is the result of children's age or their lack of interest or ability. Teachers now see the issues as common writer's problems which can be supported by specific intervention strategies, designed to help children improve their writing.

1.4 The potential benefit of computers for improving writing standards

Government statistics indicate the benefits of using computers to help improve literacy standards. A report by the British Educational Communication and Technology Agency (Becta, 2001) highlighted an emerging link between high results in the Key Stage 2 tests and good ICT provision. Seventy six percent of pupils in schools with very good ICT resources achieved Level 4 or above in English (2000 tests), compared with 71% in schools with poor ICT resources and such schools were considered to be on track to reach the 2002 targets (www.becta.org.uk 'Primary schools of the future - achieving today'). The report noted that
the improvements were not the result of differences between schools' backgrounds or intakes. Good ICT teaching also helped raise standards. Sixty-eight percent of schools that combined good ICT teaching with good ICT resources were achieving above national standards in English. It would seem that children like using computers for schoolwork. Eighty percent of the 7-14 year olds surveyed by the Department for Education and Employment (DfEE, 2000) would like to use computers more frequently within school and 74% said they enjoyed using computers, stating that computers improved their concentration and enabled them to learn more than they would without using computers. Such is the belief in the potential of computers to contribute to improvements in standards in primary schools, the Government pledged that by 2002 the ratio of pupils to modern computers would be at least 8:1 in all primary schools, launching a range of package deals in 1999 in order to achieve this target (www.literacytrust.org.uk/database/ICTgovt.html). In addition, all primary schools were to be connected to the Internet as a consequence of the Government's target to link every primary school to the National Grid for Learning (NGFL) by 2002 (www.ngfl.gov.uk).

However, Ofsted's (1999) evaluation of the impact of the first year of the Literacy Strategy commented on the sometimes poor use made of ICT in primary schools (p. 19):

'The independent work element of many literacy hours included the use of ICT by a group of pupils; unfortunately, the work on which they were involved was often unrelated to the objectives of the literacy lesson and too frequently was little more than low level drill practice.'

Whether computer use can directly result in improved writing quality would seem to depend upon the exact use made of the technology. This begs the essential question: how should a computer tool be designed so that it helps children improve their narrative writing? Answering this question however, raises more questions. These questions form the basis of the research outlined in this thesis.

1.5 Research questions

1. What makes a 'good' story, how do mature writers approach the task of writing, and what is the best method of teaching writing? How can these features be integrated into the design of a computer tool?

2. How can differences in children's narrative writing be assessed?

3. Can a computer tool change the way children approach the task of writing?

4. Do children write better stories when assisted by a computer delivered intervention strategy?

5. Can the natural course of children's writing development be accelerated by an intervention strategy delivered by computer?
1.6 Contribution of the thesis

This thesis presents findings concerning:

- the nature of the problem regarding children's writing performance;
- the requirements and recommendations of national government documents relating to literacy;
- an effective teaching approach;
- a comparison of the way mature writers operate with the approach adopted by beginner writers;
- the usual course of children's writing development;
- criteria essential for the creation of effective narratives, drawn from the national documents and research literature, and examples of good children's fiction;
- a review of alternative computer tools designed to assist children with writing;
- the design of a new writing system (HARRY) which displays the reflective composition process characteristic of mature writers and imparts expert-like knowledge concerning narrative writing;
- quantitative analyses of grammar and style features contained in children's writing, across the ability range;
- the design of a new tool (CHECK TEXT) that interprets quantitative analyses of children's written grammar and style in order to help identify their strengths and weaknesses;
- results from a preliminary study investigating the effects of the HARRY writing system upon pupil's writing performance and behaviour; and
- results from a follow up study investigating the after effects of the HARRY intervention strategy.

1.7 Structure of the thesis

As a new computer system should consider Government documents relating to literacy such as 'The National Literacy Strategy' (DFEE, 1998) and 'English: The National Curriculum for England and Wales' (DFEE, 1999), Chapter 2 outlines the main features of these publications together with an analysis of the two broad models which underpin these documents: the writing process itself (for both mature and beginner writers) and methods of teaching children how to write. The developmental stages of children's writing and the features of a successful story are also considered. The chapter concludes that young children will benefit most from a computer tool which guides the structure of the narrative whilst facilitating the process of revision. In addition it needs to explain literary techniques and provide assistance with detecting and correcting significant grammar errors.
Before developing a new computer tool, it is necessary to review alternative writing applications. Chapter 3 records examples of software packages, related web sites and writing systems, together with an analysis of their perceived strengths and weaknesses. The conclusion of the chapter is that the computer applications outlined in the review do not reflect the research literature concerning models of the writing process, teaching models, components of successful narrative writing and children's writing development, in the way proposed for the new tool.

Chapter 4 outlines the design of HARRY. The chapter begins by explaining the model upon which the system design is based, then describes the interface. HARRY uses conversational style prompts to guide children individually in a conference-like situation, through a more mature writing process, dividing the process into two main stages: composition and editing. During the first stage, prompts encourage children to simultaneously revise their narratives as they compose. Editing suggestions provided at the second stage indicate how to improve the grammar and style element of their writing.

Whilst the descriptive 'best fit' assessment method of the National Curriculum Levels (indicated in Section 1.2.3. and outlined in more detail in Chapter 2) was considered useful, finding a more systematic, precise and objective way of assessing stories was considered essential before testing the new writing system in a primary school. A computer generated quantitative analysis designed to supplement qualitative judgements was developed alongside the writing tool. Chapter 5 outlines the criteria upon which a separate tool, CHECK TEXT, is based. This is followed by an outline of the utility's functions. Finally, how the tool successfully detects grammar and style strengths and weaknesses in children's writing is demonstrated. Criteria for measuring differences in holistic features are also discussed.

A preliminary study was undertaken in a primary school to assess the effects of the HARRY writing system upon children's writing behaviour and performance. The resulting case studies are discussed in Chapter 6. The children were observed as they wrote two stories on the same theme - a control story written without any assistance and a second story written with the assistance of HARRY. Each story is evaluated along two dimensions: organisation and use of literary techniques, and grammar, including style. The control story is compared to the second story for each child, and similarities and differences are noted. HARRY’s effects upon pupils writing behaviour are also discussed. National Curriculum Levels as judged by the pupils' class teacher are supplied for all the stories. The study revealed that all the children's HARRY assisted stories were better than the controls, and that the children
adopted the revision process characteristic of mature writers. A control group also wrote two stories, but without receiving any assistance. There was little difference in writing quality between these story pairs.

A follow up study was undertaken in the same primary school to investigate the after effects of using the HARRY intervention strategy. A pre-test post test research design was followed. Six children were observed as they each wrote a story without receiving assistance, a HARRY-assisted story then another story written without assistance. All the stories were assessed quantitatively and qualitatively and each child's set of stories are compared. The children were also interviewed as a further source of triangulation. Comparison of the pre-test and post test stories revealed that HARRY can accelerate children's writing development. In addition, the children reported that the system made the task of writing a story easier and helped them to improve at writing. The six case studies are presented in Chapter 7.

The final chapter summarises the achievements and limitations of the HARRY writing system, indicates potential refinements and developments, highlights the contribution made by the project and proposes future areas of research.
Chapter 2
EDUCATIONAL CONTEXT

2.1 Introduction

'The teaching of writing demands the control of two crafts - teaching and writing. They can neither be avoided, nor separated.'

(Graves, 1983, p.5)

Designing a new computer tool which aims to help children improve their narrative writing, required an examination of models of the writing process for both mature and beginner writers, models for teaching, the stages of development in children's story writing skills and features of a successful story. As account should be taken of the government documents relating to the teaching of literacy, this chapter outlines the requirements of the relevant national documents. Links between the recommendations contained within the documents and the research literature concerning the models for writing and teaching, developmental stages and the criteria of successful stories become apparent. The chapter ends by summarising the implications of the research for the design of the new writing tool.

2.2 National documents

The two main government documents concerning writing, approach the task in different, but complementary ways. 'English: The National Curriculum for England and Wales' (revised, 1999) is concerned with levels of attainment. 'The National Literacy Strategy' (1998) focuses on teaching objectives for each of the four year groups within the Key Stage (Years 3-6). Teachers are expected to use the Literacy Strategy teaching objectives to help pupils move from one National Curriculum level to the next.

2.2.1 English: The National Curriculum for England and Wales (DfEE, 1999)

Writing is sub-divided into composition, planning and drafting, punctuation, spelling, handwriting, Standard English, and language structure. The range of purposes for writing is expected to focus on creative uses of language and how to interest the reader. It stipulates that pupils should be taught to plan, draft, revise, proof read, present and evaluate their own writing. The punctuation they should be able to use correctly by the end of the Key Stage includes: full stops, question and exclamation marks, commas, inverted commas and apostrophes. Pupils are expected to be taught spelling strategies and morphology, to write legibly, and to write with varying degrees of formality. The elements of grammar expected to be taught include: word classes (nouns, verbs, adjectives, adverbs, pronouns, prepositions...
and conjunctions), types of sentence (statements, questions and commands), complex sentences (including clauses, phrases and connectives) and the purpose and organisation of paragraphs. Since 1995, children have been assessed according to National Curriculum level descriptions using a best fit approach. At Key Stage 2, the levels range from Level 2 to Level 5/6, with Level 4 being the average level expected nationally. The assessment of the story writing test is divided into two categories: 'purpose and organisation', and 'grammar' (including style). Spelling and handwriting are assessed separately. Table 2.1 has been constructed from published assessments of stories written for the national curriculum tests at the end of Key Stage 2 (School Curriculum and Assessment Authority, HMSO 1997, 1998) to indicate expected features for each of the levels.

Annual national reports on the Key Stage tests (for example, Ofsted, 1998b, 1999a) have pinpointed the aspects which require particular attention. These can be summarised as:

- pupils show relatively little progress in their use and range of narrative conventions;
- pupils need to be taught ways of organising ideas in sentences and paragraphs;
- the highest incidence of error tends to be in punctuation within the sentence; and
- understanding of punctuation is linked to understanding sentence and clause structure.

Annual Ofsted reports (for example, Ofsted, 1999b) have highlighted examples of good practice observed in various parts of the country in order to encourage better teaching practices generally. These can be summarised as:

- a good technical knowledge of literacy;
- the incorporation of word and sentence work into the teaching of writing;
- intervention at the point of composition to teach writing skills; and
- the reinforcement and development of writing skills throughout the curriculum.

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1 The mark scheme has changed since the introduction of the SATs tests. Currently (2003), examiners are required to award separate marks, which are then totalled, for the following three features: 'sentence structure and punctuation', 'text organisation' and 'overall composition and effect'.

17
<table>
<thead>
<tr>
<th>Level</th>
<th>Purpose and Organisation</th>
<th>Punctuation</th>
<th>Style</th>
</tr>
</thead>
</table>
| 2     | • Some basic elements of story structure are present.  
       • There is an opening.  
       • More than one character.  
       • Two or more events are related in chronological sequence.  
       • Story language is used e.g. 'One day' and 'suddenly'.  
       • Minimal development of setting and characters.  
       • Minimal dialogue.  
       • Story may not have an ending other than 'The End'. | • Some sentences are demarcated by capital letters and full stops. | • Uses basic words like big, nice, got, went.  
       • Non-specific vocabulary (make do, got, thing, someone etc)  
       • Simple connectives e.g. and, so, then. |
| 3     | • The writing has a beginning, middle and ending.  
       • Events are related to one another, though not necessarily well-paced.  
       • There is some description of the setting or character’s feelings. | • Full stops and capital letters are used accurately in half the sentences.  
       • Other sentences are properly structured even if punctuation is incorrect.  
       • Nouns and verbs generally agree. | • Some connectives other than 'and' and 'so' are sometimes used to help develop complex ideas (e.g. but, also, because).  
       • The writer is beginning to select vocabulary to create an effect.  
       • There is some significant use made of adjectives and verbs to enhance the quality of the writing. |
| 4     | • The events progress logically and the story is lively and well-paced.  
       • The writing has a clear beginning, middle and ending, with the beginnings of paragraph divisions.  
       • There is some significant interaction between the characters and characterisation is evident through speech. | • Most sentences use capital letters and full stops.  
       • Dialogue (if used) is properly punctuated and uses speech marks.  
       • Question marks and/or exclamation marks are used accurately.  
       • Sufficient commas are used to allow meaning to be clear. | • Well chosen vocabulary.  
       • There is a sensible use of connectives (e.g. if, when, rather, than, although, however, as).  
       • Sentences are often complex with ideas qualified by subordinate clauses or phrases.  
       • Some expansion before or after the noun (a shiny blue machine).  
       • Pronouns and tenses are generally consistent. |
| 5     | • The story has an opening which captures the reader’s attention through the use of different narrative techniques e.g. dialogue, action, description and flashback.  
       • The passage is well developed and shows a secure grasp of the chosen form of narrative e.g. adventure or fantasy etc. | • Punctuation is virtually wholly accurate. Commas are used to separate elements of a sentence and lists.  
       • A range of punctuation - speech marks (including comma to introduce/conclude | • Language is imaginative and effective throughout.  
       • Ideas, settings and characters are well described.  
       • Varied sentence structure is employed including the use of questions, short simple sentences and complex sentences |
| 5+ | The story is well constructed, in an appropriate form and shows the development of a theme (controlling idea) as well as a plot. | Sustained accurate punctuation, with variation in clause length. |
| | The mood or moods of the piece are clear. | Commas used to avoid ambiguity in sentences. |
| | Detail and sequence are confidently managed to engage and sustain the reader's interest through e.g. the management of surprise, use of non-linear timeline, the inclusion of conflict or relationship between characters and reflection of characters and actions. | Brackets, dashes, colons, semi-colons used to introduce explanations, examples, lists etc. |
| | Ideas, including dialogue, are organised appropriately into paragraphs. | Precise and varied use of vocabulary. |
| | Dialogue, action and description are skilfully interwoven. | Varied choice of verbs (clambered/plodded) and adverbs (reasonably well behaved children) to give shades of meaning. |
| | There is a strong ending. | Deliberate alteration of word order for effect e.g. 'over it went, vase and all'. |
| | | Deliberate patterning for emphasis and rhythm e.g. 'the thunder roared, lightning flashed and the rain began to pour'. |
| | | Characterisation through dialect, slang or colloquialism as needed. |
| | | Similes, metaphors, personification or hyperbole are used. |

- Paragraphs are used effectively.
- There is an unpredictable turn of events and a satisfying ending.
- Conclusions follow logically from all that has been said earlier.
- Dialogue (if used) is convincing and helps develop the characters.
- The writer makes comments on the action or indicates the thoughts/feelings of the characters.
- Speech, question marks, exclamation marks, apostrophes and brackets are used and enhance the quality of the writing.
- Which include adverbial phrases and/or expansion.
- Appropriate poetic effects, similes or metaphors are used.
- Deliberate patterning of words for effect e.g. by use of alliteration.
2.2.2 The National Literacy Strategy: Framework for Teaching (DfEE, 1998)

The National Literacy Strategy' outlines a detailed and comprehensive four year teaching programme designed to enable teachers to assist children develop their writing skills. Briefly, the skills expected at Key Stage 2 are identified as:

- an increasing control over the structure and organisation of different types of text;
- a widening range of syntactic structures and vocabulary;
- using punctuation to help the reader identify the units of structure and meaning that the writer has constructed;
- using the conventions of spelling patterns and a legible hand; and
- increasing proficiency in revising text with an ability to reflect on and talk about the writing processes using suitable technical vocabulary.

The Strategy provides a practical structure of time and class management for a daily 'literacy hour'. The structure of the literacy hour is divided between 30 minutes of whole-class teaching, 20 minutes of group and independent work and 10 minutes for whole-class review, reflection and consolidation. It outlines a prescribed method of teaching designed to facilitate children's learning effectively. Teachers are required to share and guide writing with their classes, making the processes involved as well as the components of successful writing explicit. Whole-class teaching is viewed as superior to individualised teaching because in the latter, the teacher has to divide attention in such a way that the net results per pupil is lower.

The breadth and depth of the teaching objectives designed to help children achieve these levels of writing competence, recommended by the Literacy Strategy for each of the four year groups (years 3-6) catered for during Key Stage 2, can only be briefly indicated here. The Strategy focuses upon three strands: Word-level work, Sentence-level work, and Text-level work. Some features related to story writing are itemised here, accompanied by a few of their occurrences in the Strategy, using teachers' commonly accepted short-hand to identify the year group, the term number and the strand (for example, Year 5, Term 2, Sentence-level work 4). Most features are revisited several times during the Key Stage.

**Text Level Work**

- Planning texts: (Y3, T3, T10); (Y4, T1, T4); (Y6, T1, T7).
- Organising stories into paragraphs: (Y3, T1, T15), structuring paragraphs: (Y6, T2, T2).
- Story openings: (Y3, T3, T11); (Y5, T1, T11)
- Using adjectives, similes and metaphors to enhance descriptions: (Y4, T2, T10); (Y5, T1, T17)
Developing characters: (Y3, T2, T8); (Y4, T1, T11), (Y5, T1, T3)

Presenting dialogue: (Y5, T1, S7)

**Word Level Work**
- Extending children's vocabulary through generating synonyms for high frequency words such as big, said and went: (Y3, T1, W17)
- Substituting words which express shades of meaning such as adverbs: (Y3, T2, W2); (Y4, T1, S3); (Y4, T1, S4).

**Sentence Level Work**
- Developing a range of sentence structures: (Y4, T2, S3); (Y5, T1, S3); (Y5, T2, S8); (Y5, T3, S6); (Y6, T1, S5).
- Finding alternative connectives to the commonly over-used connective 'and': (Y3, T1, T5); (Y4, T3, S4); (Y5, T3, S7).
- Demarcating sentences accurately with full stops: (Y3, T1, S13); and commas (Y4, T1, S5); (Y5, T2, S6); (Y5, T2, S9).

With so many different features of successful story writing to bring to the attention of pupils, individual literacy hours can expect to focus on just one or two aspects. A lesson with the objective of explaining how to write effective character and setting descriptions, using similes and metaphors, might proceed as follows. The first 10 minutes might be spent with the whole class looking together at a text identifying similes and metaphors etc. Next, the teacher might spend 20 minutes demonstrating and discussing with the whole class how to write a description using similes and metaphors. A text might be constructed jointly with pupils; the teacher recording a passage on a board, guiding the narrative, channelling pupils' ideas and suggestions, and discussing with the class the choice of appropriate words and phrases etc. In other words, the teacher makes explicit the thought processes involved in writing, demonstrating how composition involves reviewing and revising whilst showing how similes and metaphors create interest in a passage. The resultant text might look something like this (the similes and metaphors might be highlighted by underlining, as in this example):

"What on earth have you been doing?" I shouted, shaking my finger vigorously like I was in pain, whilst my face turned as red as a beetroot.

"It's like a demolition site in here!" It was too. But guess what? My sister looked like she hadn't noticed. She was sitting, as still as a statue on the floor, the mess completely invisible to her.

Well, I could see the chaos as clear as glass. The bedclothes were strewn across the floor, the chest of drawers was littered with make-up and it looked like piles of magazines had been kicked around like footballs. She'd obviously had her friends round! Well, all I can say is, her friends must behave like monkeys do at the zoo.
I turned to go downstairs. "Just wait 'til I tell Mum," I cried.

This imaginary teacher has thus demonstrated how similes and metaphors help to enhance the description of a scene and the characters. For the 20 minute independent activity to follow up this work, children might be asked to write a description of another room in a house, after it has been messed up by a character - perhaps the bathroom which a teenager uses to get ready for a disco. The final 10 minute plenary session would give pupils the opportunity to demonstrate the way they tackled the task. The teacher can highlight the positive features of their descriptions, commenting on any unusual similes for the benefit of the whole class.

Other literacy hours may focus on other aspects of stories, such as using dialogue to enhance characterisation, or how to create effective story openings. In order to familiarise children with story structure, they might be required to plan the events of a story, using a given story outline. This requires children to focus on the contents of the story they will write, before they begin writing and can be used later as a guided writing activity. Alternatively, the plot from a well-known story can be used as a basis for a new story with a similar theme. Children could be encouraged to share and discuss their planning with each other. When the stories have been completed, another classroom exercise could involve checking their own or their partner's story to see if all the necessary aspects of a story have been included. Literacy hours focusing upon writing skills will have built upon previous shared reading sessions, where effective features within texts, such as the use made of similes are highlighted by the teacher and discussed with the group of children.

2.2.3 The Grammar Papers (QCA, 1998) and Not whether but how (QCA,1999)

'The Grammar Papers' and 'Not whether but how' heralded the reintroduction of explicit grammar teaching, after a lapse of 30 years, into initial teaching training and subsequently primary schools. The concluding comments of the Grammar Papers summarise the message of the documents:

- discrete teaching of parts of speech and parsing in decontextualised exercise form (the traditional approach adopted by schools for teaching grammar) is not effective;
- experience of the syntactic demands of different types of tasks is a key factor in pupils' writing performance and development; and
- drawing explicit attention to the syntactic features of pupils' writing can increase pupils' awareness of how language works: this may in turn increase their control over their writing.
2.2.4 Marking guidelines for writing (QCA, 2001)

'Marking guidelines for writing' encourages teachers to provide feedback to children about their writing performance, based upon detailed assessments made of pupil's strengths and weaknesses. Teachers are expected to use a process similar to the mark scheme used in the National Standard Assessment Tests (SATs) at the end of Key Stage 2, as knowledge of individual children's strengths and weaknesses can indicate which aspects require further practice. The document provides a 'writing analysis sheet', which identifies aspects of children's writing crucial to progress - particularly moving writing from Level 3 to Level 4. The sheet suggests teachers focus on four features: organisation and effect, sentence structure, word choice, and punctuation, but excludes spelling and handwriting. Spelling and handwriting are assessed separately.

Many features of the Government documents specifying the teaching approaches to be adopted, directly reflect the research literature. Researchers have investigated various aspects of writing. The aspects pertinent to this project are: the models of writers' behaviour (including both mature and beginner writers) the development of children's writing, and models for teaching writing to primary aged pupils, including effective ways of promoting mature writing.

2.3 Models of writing

2.3.1 Mature writers

Flower and Hayes (1981) have described a powerful model of the psychological processes mature writers experience when writing. The writing process is broken down into component sub-processes. It is assumed that writers have limited capacity for attention, so trade-offs have to occur in the way in which they allocate attention to these sub-processes. Thus, the more attention writers have to pay to memory, the less they have available for translating into words or for thinking about punctuation. Flower and Hayes describe their model as a cognitive process model which they contrast with a stage model. A stage model implies that writing can be broken into discrete linear stages such as planning, writing and revising, with planning occurring before writing and writing occurring before revision. By contrast, their cognitive model takes the view that the processes involved in writing are recursive and that the observable stages of writing (planning, composing and revising) can and do take place throughout the process. The writer swaps between these activities throughout the writing process, satisfying the multiple constraints; the proportion of time spent in each activity and...
the sequence of activities varies with each writer. Flower (1994) characterises writing as the ‘negotiated construction of meaning’ and likens the constraints to multiple ‘voices’ which lead the writer in different directions. Voices correspond to the different types of constraint that impinge upon the process. She emphasises that the constraints are not innocent bystanders to the process. The writer must ‘negotiate’ with these voices to achieve a solution which creates meaningful text and, at least partially, satisfies the constraints.

Bereiter and Scardamalia (1987) describe the approach adopted by mature writers as knowledge-transforming, which they explain in terms of a mental dialogue between content and rhetoric. The content space contains the writer’s beliefs about the writing topic and the rhetorical space holds knowledge about the text, such as its style, structure, purpose and audience. For most mature writers the process is intuitive - an automated skill performed without making conscious decisions about how to accomplish the task or the ability to talk abstractly about the performance. Sharples (1999) suggests that writing can be seen as a process of ‘creative design’, a skill grounded in the way we use our intelligence to create and share things in the world. Crucial to this view is a recognition of a set of internal and external constraints. These constraints are not restrictions on writing, but a means of focusing attention and channelling mental resources. Learning, experience and environment work together to shape the activity of writing. Parallels between writing and design include:

- their open-endedness;
- their potential endlessness;
- there is no infallibly correct approach - there are many equally successful ones;
- they involve finding as well as solving problems - a number of simultaneous constraints have to be juggled; and
- they inevitably involve subjective judgements.

2.3.2 Children writers

Bereiter and Scardamalia (1987) made the distinction between the knowledge-transforming composing approaches adopted by mature writers and the knowledge-telling approach adopted by children. Sharples (1999) uses their simpler definition of the strategy adopted by children when writing - the ‘what next?’ strategy. Children usually start a story writing episode, by composing a short segment that captures it in writing and then reply to the question ‘what next?’ with another event. The child does not consciously form the ‘what next?’ question in the mind, but continues as if it had been asked. A text is arranged around a series of written events, co-ordinated by adjacency or by simple connectives. Therefore,
the child writes down an initial idea, then uses this as a cue to probe the memory for associated ideas, keeping going until the ideas stop flowing. However, creating and transcribing a chain of associations leaves no space for reflection. Reflection causes children problems. It requires the child to abandon current ideas, returning to them later by either remembering the previous context or by rereading the text, which they find difficult. Few young writers attempt a knowledge transforming strategy and when they do it is usually unsuccessful.

2.4 Developmental stages of children's writing

2.4.1 Story structure

Writing requires deliberate planning in order to organise the quantity of ideas that go into a long composition. Mature writers can be distinguished from beginner ones not only by the compositions they produce, but by the amount and kind of planning they do (Hayes and Flower, 1980). In the course of writing development, planning becomes gradually differentiated from text production. Burtis et al. (1983) found that this differentiation involves two identifiable steps. When young children attempt to record plans in advance of writing, the notes produced effectively amount to a first draft, which is then edited to a final draft. For young writers the product of planning is text. For mature writers, notes represent ideas that are later worked into compositions - the product of planning is a plan - not just a stripped-down text, for the notes bear little structural or stylistic resemblance to the subsequent text. Burtis et al. (1983) found a clear increase from age to age in the amount of transformation done on notes to convert them into text.

As children tend to 'ramble on' (Alexander and Currie, 1998) and rarely plan their writing, their narratives usually develop in haphazard ways - a consequence of the 'what next?' knowledge telling approach. Kroll and Anson (1984) categorise children's writing into five 'structures': 'associational' (where the writing is about a series of incidental events with no real coherence); 'descriptive' (where the writing is a catalogue of details with no development); 'unanchored action' (a sequence of events with no setting or context); 'entanglements' (where the events become over involved and no resolution is possible) and 'abandonment' (where the writing just ends). Only when the child is able to stop and reflect about the mental processes, is it possible to break out of the 'what next?' trap and progress towards the more mature forms of writing that include summoning up schemas for setting scenes, introducing characters, recording dialogue, creating suspense etc.
2.4.2 Grammar development

Drawing upon Quirk's (1972) descriptive grammar, Perera (1984) and Kress (1982, 1994) have established several broad stages of linguistic development which children ensue as they develop into mature writers, although they hold different views concerning the reason for this common pattern of development. Perera perceived that children's writing development is influenced by the models of writing presented to them in published texts: as children grow older, the texts they read contain more mature writing styles, which are imitated by children in their writing. Kress identified the presence of maturity in writing when children learn to write sentences which display a different syntax to speech.

Briefly, the pattern of development proceeds broadly as follows. Initially, children characteristically write a few lines of text using simple vocabulary such as 'big', 'nice', 'said', 'went', 'saw', 'got' etc., recording their thoughts and ideas in simple sentences. Young children frequently exhibit excessive repetition of the same subject pronoun such as I...I...I or He...He...He. This reflection of the characteristic chaining syntax of speech results in a rather tedious writing style. Compound sentences are also a feature of early writing development. Typically, sentences are linked by several 'and's or 'and then's. For example: 'I went to the park and I fed the ducks and I went on the swings and then I went on the slide'. A more mature style develops as more sophisticated vocabulary is incorporated such as 'enormous', 'beautiful', 'whispered', 'ambled', 'fetched' etc. and when adverbs such as 'nearly' or 'quietly' are chosen to convey shades of meaning. Other ways of writing sentences begin to be applied, such as replacing an 'and' with a full stop and beginning a new sentence, or substituting an alternative connective for 'and', such as 'when' or 'whilst'. Thus, the phrase 'the wind blew and the leaves fell from the trees', might be expressed by a more mature writer as 'when the wind blew, the leaves fell from the trees'. As children's use of compound sentences decreases, so their use of complex sentences, where an independent (main) clause is linked to dependent (subordinate) clauses, increases. Mature writing is thus characterised by the presence of subordinated and embedded clauses. Therefore a young child might write: 'She ran quickly to get to the shop before it closed', whilst a mature writer might record the event as 'Running quickly, she reached the shop before it closed'. According to Perera (1984), up to the age of nine years, most children display a lower level of grammatical maturity in their writing than in their speech. From then on, writing becomes increasingly differentiated from spoken language, employing a higher proportion of complex constructions and structures that rarely occur at all in spontaneous speech, which Perera suggests is influenced by reading. However, although linguistic maturity can be seen in terms of the writer's increasing ability to handle complex constructions successfully and
immaturity evidenced by a succession of short simple sentences, mature writers recognise that there is no virtue in complexity for its own sake. Short, simple sentences should be interspersed between longer, more complex sentence constructions when writing a story, to achieve particular effects - short sentences can add suspense whilst long sentences comprised of several clauses, can enhance descriptions.

Punctuation is directly linked to grammar, as it is the purpose of punctuation to enable texts to be read coherently by displaying their grammatical structure. The key features are the sentence ending points and clause dividing commas (Crystal, 1995, p.278). There has been little research into how punctuation is learned however - few studies have attempted to make comparisons over time to discover how use of punctuation develops, as studies tend to feature beginner writers, whether adults or children (e.g. Shaughnessy 1977, Edelsky 1983). As Hall (1996, p.1) commented, 'the demands of the British National Curriculum documents were predicated upon virtually no research evidence'. However, the studies that have been undertaken, agree that understanding the punctuation system is a slow process because punctuation is a complex object. The central problem is that although 'a sentence' is readily defined by linguists, children have no notion of the concept of 'a complete sentence' (Hall, 1996). Kress (1994) suggests the cause of this problem: children spend the first few years of life in a world which is highly oral. The sentence is a unit of written language, not spoken, of which young children have little experience.

Hall (1996) has noted how the studies investigating children's punctuation are unrelated pieces of research, which do not form a coherent picture. Nevertheless, some interesting observations have been made. Early writing by children is characterised by the absence of the sentence (Kress, 1982). If full stops are used, they are likely to be used to separate more easily understood units such as lines, pages or subjects. Cazden et al. (1985) found five patterns of usage when children begin to use punctuation: interword, endline, endpage, phrase structure and correct usage, but more than one of these hypotheses were tried in a single story by all the children studied. Cordiero (1988) noted older children made phrasal misplacement errors, whereas younger children made errors related to lineness, wordness and pageness rather than syntactic categories. Wilde's (1996) two year study, restricted to the development of just four punctuation marks, (full stops, question marks, commas and speech marks) revealed that children initially focus their efforts on full stops, then pay increasing attention to question marks, followed by commas, then speech marks. Anderson (1996) found that seven year old children are more consistently accurate in their use of punctuation when their writing is restricted to simple sentences, than when they attempt more complicated sentence constructions. Hall (1996) found that six year old children are
resistant to using punctuation, particularly full stops, despite regular reminders to include punctuation, suggesting that punctuation is meaningless to very young writers.

2.4.3 Revision and editing

For mature writers, writing is essentially rewriting (Murray, 1984). Revision is at the heart of the composition process - the means by which ideas emerge and evolve and meanings are clarified in successive drafts. Children however, rarely initiate revisions to their writing, whether they are using pencil and paper or a word processor. The research is conclusive. Most children merely proof read at a superficial level focusing on spelling (Bereiter and Scardamalia, 1983) and increased attention focusing on revision, rarely improves writing quality (Baskerville, 1986). Children seldom make more global changes, such as starting again, adding or deleting words, sentences or ideas in order to clarify the meaning. Yoder (1993) found the same was even true of older college students who were studying journalism. Shaughnessy (1977, p.80) noted how her older, low achieving students also avoided making revisions as this meant revisiting parts written earlier. She compared their method of writing to someone 'making his way through a lush forest that closes behind him as he moves ahead'. Turning back, retracing steps or re-evaluating ideas went against the grain for these writers - after all, any changes meant extra work and this usually meant rereading sometimes indecipherable handwriting and tedious recopying.

It is clear that children's general lack of revision is due, not to a reluctance on the part of the young writers to make changes to their own drafts, but to the inherent difficulties involved with the task. Researchers account for the difficulties in different ways however. Research based on Piagetian theories of cognitive development, such as Bereiter and Scardamalia's, suggests that there may be certain cognitive limits on the skills that even practised children can acquire. With this view, children's revision problems are seen to stem from an inability to represent an event from two points of view - their own and that of the reader. Only when children's egocentrism eventually diminishes will they learn to maintain two points of view and make decentred comparisons between them. For this reason, Bereiter and Scardamalia (1987) argue that revision by primary aged pupils will always be ineffective - whether it occurs during or after the completion of a text, although they found that attempts by peers to revise the same texts can result in appreciable improvements.

Other researchers such as Bartlett (1982) suggest an alternative reason for why children are unable to revise - revision involves two key processes: detecting (which includes identifying) a problem followed by the ability to successfully correct it. For mature writers, detection and correction are performed simultaneously, but for beginner writers, difficulties can arise in
either of the processes. Children may comment that “this sounds funny” or that “isn’t right”, but be unable to correct the problem or be able to correct a problem, but only if directed to it. In order to detect a problem, writers must achieve a detachment from their work that allows them to see what is on the page, not what they hope will be on the page. The writer must inhibit interpretations based on knowledge of the writer’s own intentions, such as with the statement “that’s his brother”, where “his” means Sam! This is privileged knowledge known only to the writer. As writers do not have privileged information about texts composed by others, they will not be faced with the problem of inhibiting it. Bartlett’s (1982) study confirmed that this was the reason for why children found it easier to detect problems in the texts of others than in their own. For children, detection is a fairly haphazard process however, often proceeding without well-planned goals or strategies, and sometimes hampered by poor reading skills.

Success in correcting a text problem depends on adequate detection processes, but these need not necessarily lead to an appropriate correction. The children involved in Bartlett's study were frequently able to detect grammatical problems which they could not successfully correct. Beginner writers may lack knowledge of a range of devices and may rely on familiar ones regardless of their appropriateness. They may also make decisions on the basis of other, more mechanical constraints, such as knowing how to delete and insert material, or conversely, not knowing how to do this. Calkins (1986) observed that coherent integration of new content into ongoing text is the main problem of young writers, as they move away from proof reading corrections towards revisions that involve more extensive reworking. Potter (1994) believed that the problem could be rectified by children having greater access to word processors (achieved by allocating children with cheap, personal, portable laptops), resulting in greater familiarity with the redrafting facilities. Teaching children how to make changes to a text is distinctly easier than helping them to see when changes are appropriate however.

2.4.4 Cognitive development

Kroll and Wells (1983) identified several cognitive stages of writing development. The first phase of writing development ('preparatory') involves children acquiring the basic mechanisms of handwriting and spelling, and gradually improving their performance at knowledge telling. The basic skills of writing are usually automatic for children by the age of 7 years. During the second phase ('consolidation') 7-9 year old children write with increasing fluency, but cannot easily take command of the process - trying out new styles and combining different elements such as interspersing descriptions with dialogue. They are willing to change spellings, but unwilling to revise. During the ‘differentiation’ phase, children of around 9-10 years begin to shape and structure the story text with more formal sentence
structure. Graves (1983) and Calkins (1986) suggest that children become more aware of audience at the age of 9-10 years, which leads to a greater willingness to draft and edit. The final phase ('integration') occurs around the age of 12-13 years, when the young writers show a wider range of writing styles and an awareness of audience, purpose and appropriateness. They are able to articulate their plans and reflect on their writing.

The speed with which children progress through the stages will depend in part on maturation, but also on classroom climate, the range of demands made upon them and the support they receive from their teacher. Progress may not be steady and the transitions may not necessarily result in improvements being made to the writing. Karmiloff-Smith (1992) for instance, observed that attempts by children to improve their writing, by reflecting upon it, can result in the opposite effect - a drop in writing quality. Sharples (1999, p.29) describes the process of gaining the ability to reflect as a 'U-shaped learning curve'. Reflection can lead a child to the bottom of the curve, but be insufficient to help the child up the other side. There may be several causes of this phenomenon. Reflecting upon performance may take up valuable mental space and disrupt the child's flow of ideas. Alternatively, the child may try to implement writing techniques or strategies without fully understanding how to apply them successfully. Other research confirms Karmiloff-Smith's findings. Langer's (1969) research on cognitive development showed that before children develop more mature thinking strategies, their writing behaviour seems worse for a time and that such developmental lags occur just before the biggest growth spurts. Harpin's (1976) study, which showed how children's writing changed through primary school using measures such as word counts and sentence and clause lengths, demonstrated that some children appear to advance very little over considerable periods of time. It would seem that speeding up children's cognitive development is no easy task. Bereiter and Scardamalia (1987) noted how their most successful experiments in affecting children's composing processes did not lead to discernible overall improvements, as judged by impressionistic ratings.

2.5 Models of teaching

2.5.1 The process model

The process approach, synonymous with Graves (1983), but also Murray (1984) and Calkins (1986) to writing, with its emphasis on redrafting and conferencing is evident in both the national documents relevant to literacy. The approach contrasts sharply with the traditional skills approach which focuses on the product of writing. With the traditional approach, children practise skills such as spelling, grammar and punctuation separately. The teacher
corrects writing when the draft has been completed. Studies such as Harpin's (1976) confirm how the traditional approach is generally unsuccessful.

With the process approach, children are made aware that a first draft is only a beginning; that changes need to be made to make a story more detailed and interesting. Fundamental to the process of writing is the support children receive from their teacher at stages during the writing process, through individual conferences. These conferences are expected to be conducted in a precise way. Each conference lasts only a minute or so and should focus on a single aspect, such as supplying a character description. The teacher follows the lead of the child, receiving the child's own choice of words, before encouraging the child to reflect upon the clarity of the text. New ideas resulting from the conferences are recorded in successive drafts. By encouraging and responding to the child with comments such as:

*Tell me where you have got to with your dog story ... Does your dog bark loudly like that at all the neighbours? What are you planning to write about next?*

Conferences help children discover what they want to say. The aim is to help pupils to put themselves in the shoes of the audience and therefore clarify the intended meaning. Process modellers stress that conferences should avoid negative comments and explicitly telling the child what to do. Sometimes, the encouragement to carry on writing is sufficient. Through extended experience of this process, it is suggested that children find their voice and a sense of control and ownership over what they produce. Graves also considers it important that teachers write with the children (writing on large sheets of paper etc.) to model the process and that they verbalise their actions, so children can not only see the product of the writing, but also hear the thinking processes which accompany the writing, in order that children gain insights into both the difficulties and delights of writing.

Graves derived the methodology from 'slowing' the writing process down, looking at the full context, sitting beside the children as they wrote and listening to the oral accompaniment to the text, the interruptions, the dialogue - watching for aspects of the process young writers struggled to control. He found a discrepancy between young writers' intentions and what they put down on the page. Graves (1983, p. 122) gives an example: A young boy wrote: 'The cars are going fast.' In his head however, the boy can feel the vibration of the engines as they roared into the curve where he was sitting watching the race. Dust, bright lights, the smell of exhaust and petrol are all in his head. He cannot think what to write, yet he knows his statement about the cars going fast is not enough. The teacher spots his problem in a conference and asks him to 'tell more' about the race. The child speaks quickly and excitedly about one of the drivers. The teacher then suggests that he record what he has just said. After the conference, he is able to write more about the race. The timely conference, by
concentrating on just one aspect of writing, enabled the child to continue writing whilst retaining his control over what he wanted to say.

Bereiter and Scardamalia's research (1982, 1986) confirms how children require the kind of feedback from a conversational partner suggested by the process modellers, if they are to progress towards the process of reflecting about writing. Their research indicated that without this feedback, children experience problems when attempting to write autonomous text. Children often stop after one point has been made - they need someone to prompt them to carry on with a nod or a comment such as "really," or "that's interesting". Children also need memory aids or prompts to help them think of something relevant - they may have plenty of information, but they need help in retrieving it.

Bereiter and Scardamalia (1982) tested the hypothesis that the lack of prompting from a conversational partner could be overcome by having the teacher regularly prompt the writer with contentless prompts such as "Go on! Tell me more - that's interesting." They compared three conditions: normal instructions to write a story, instructions to write as much as possible and instructions to write as much as possible with the teacher adding contentless prompts at intervals. The second group produced three times as much material as the first and the third group produced twice as much again. Further research (Bereiter and Scardamalia, 1986) revealed a slower production rate produced better quality than quick bursts of writing, typical of speaking.

Bereiter and Scardamalia (1982) also tested the hypothesis that without a response partner, children 'dry up' when writing due to an inability to recall what they already know. In conversation, children rarely need to do a memory search - one child talking about a topic will be enough to spark off memories of similar events in other children. Teachers typically conduct 'brainstorming' sessions before asking children to write, to jog their memories and bring memories to the surface. Bereiter and Scardamalia predicted that a pre-writing brainstorming session would help pupils retrieve more relevant ideas to write about. Children were given a topic to think about and asked to record any thoughts they had. The strategy was unsuccessful as pupils tended to write in sentences. A second strategy was tried. Working in groups, the children produced lists of words relevant to the topic. After 12 training sessions, pupils who used this word listing approach generated twice as much writing as control groups writing on the same topic, used three times as many unusual words and elaborated their arguments better. This was no guarantee that writing was of better quality, but Bereiter and Scardamalia argued that with more content to work on and the confidence
that comes with a successful memory search would lead to improvements in quality. The experiment confirms the importance of helping young children to find ways of searching their memories as an aid to generation of content, when a conversational partner is not around to prompt them to keep them on track.

The concept of developing children’s writing by making available the assistance of a response partner in a conference situation, has a counterpart in the work of Vygotsky (1962), whose theory is that learning first occurs in a social setting and is then internalised. The emphasis on conferencing is supported by Vygotsky’s notion of the zone of proximal development (ZPD), which refers to the difference between what people achieve by themselves and what they can achieve with the assistance from a more skilled person (e.g. Vygotsky, 1962, p. 187; 1978, p.86). The assistance is represented by the concept of ‘scaffolding’, the term used by Bruner (1986, p. 74). Scaffolding provides an intellectual framework, a facilitating context, which allows a task to be completed. Then the scaffolding is gradually removed and the learner learns to cope on his/her own. The zone of proximal development and scaffolding as a teaching strategy are discussed in more detail in Section 2.5.3.

In Graves’ approach to teaching writing, the teacher’s questions and comments provide the scaffolding for the young writer’s ideas to be further developed and clarified. The writer should then be better able to develop and clarify a text without so much support. The approach builds on a model of writing derived from information processing theory which accepts the workings of a man-made information processing system as a metaphor for the workings of the human mind. By making the comparison, it is possible to understand more clearly the cognitive processes which underlie human behaviour, but which are not easily accessible to direct study or observation. Fundamental to the model is the concept of ‘feedback’. A ‘feedback loop’ conveys information from some kind of ‘sensing device’ to an active counterpart. The information received from this sensing device causes the active counterpart to carry out operations of some kind (or not to carry them out depending on the nature of the information received). The sensing device is therefore constantly gathering information and conveying it via the feedback loop to the active counterpart to initiate if necessary, some kind of action. The sequence is one of constant testing to secure information, the intermittent relaying of information to the active device and intermittent activity resulting from the information received. The testing/sensing device is entirely dependent on some kind of prior information or pre-programming; it has ‘to know’ what information is required to search for. This essential prior information is represented as ‘a plan’ and the sensing device constantly searches for ‘congruence’ or a state of affairs that
matches the pre-arranged 'plan'. There is therefore a continuing cycle of testing, information processing and activity to ensure a match between the plan and the system it is connected to. But what kind of 'test' does a writer carry out to ascertain whether 'congruity' or 'incongruity' to the 'plan' has been achieved? The 'plan' which influences the sequence of coordinated human activity involved in producing writing is not simple or self contained. Behaviour is complex – cycles of activities overlap each other – for example composing what we wish to write overlaps the process of recording ideas in symbols. The mental 'plans' that influence and direct our behaviour are dynamic and flexible – they are adapted and change as a result of new experiences. They are shaped by our values and attitudes. Children are motivated by their own values and attitudes and this can be in conflict with teachers' objectives. In order to succeed therefore, any approach to the teaching of writing must remember that meanings and values about the nature of success in writing cannot be imposed; they need to be negotiated and exchanged so that children can gradually construct their own independent values for judging their writing.

Doubts have been raised about both the research base and the effectiveness of the process approach advocated by Graves. For instance, although Graves studied four classes of children, only 30 children are ever referred to, and one child 'Andrea' is referred to many more times than any other. There are hardly any mentions of where the model was found invalid and no mention of the influence of teacher enthusiasm (the 'Hawthorne effect'). Graves gives no examples of writing in all its successive drafts and the examples of work which he does provide are of doubtful quality, frequently featuring dubious topics, for example (p.128):

'If you pull the pin on a grenade you have to throw it quickly, or it will blow up in your hand'.

Graves (1983), Murray (1984) and Calkins (1986) report only subjective qualitative benefits of the approach - that everybody produces worthwhile work, intimating there are no failures. Nevertheless, the benefits of the approach seem to be confirmed by subsequent studies, such as, Clarke (1988) and Varble (1990). Evaluating the effects of the approach in comparison to the traditional approach, they comment on how children taught by the process approach wrote sooner, wrote more and used a wider range of vocabulary, although it made no difference to punctuation and increased the range of spelling errors. However, other researchers identified negative aspects to the approach. Willinsky (1990, p.128) found that the boys he studied wrote 'violent story after violent story', while the girls wrote stereotyped stories where, for example, 'princesses wake up and dance with princes all night long'. Rosen (1989) argues that process writing, with its emphasis on redrafting, can erode the
'feeling' from children's original words and that the subsequent redrafted and conferenced texts can lack authentic and individual expression.

The main problem with the approach would seem to be with implementing it effectively in the classroom. Hood (1995 p.49) suggested that many of the conferences he witnessed in schools were a 'waste of time' as teachers used them to focus only on the surface features of the writing such as spelling and did not explore the content. The number of children in a class is sometimes believed to make a process writing classroom difficult to manage. Walmsley and Adams (1993) for example, reported teachers' experiences with implementing the approach: their concerns ranged from feelings of personal inadequacy, to lack of resources, and limited time. Bereiter and Scardamalia (1986) felt that the conferencing technique could help, but doubted whether many teachers had developed enough insight into the processes of good writing to help their pupils in this way. This view is confirmed by White's (2000) study, which suggested that successful implementation of the approach depended upon the culture prevalent in the classroom and upon the teachers' perceptions of their role. White's study of two teachers, who both believed they were implementing the process approach, revealed two opposing classroom cultures. The 'teacher-dominated' classroom resulted in lack of engagement on the part of the pupils, whereas the classroom which fostered negotiation between teacher and pupils resulted in 'authentic writing', enthusiastic writers and highly effective texts. In other words, the teacher who negotiated and exchanged ideas with pupils created a climate of 'cognitive conflict', which had the effect of challenging them to improve their writing. The teacher who directed and imposed a structure and style with little contribution from the pupils, produced disengaged writers who were disinterested in improving their writing.

2.5.2 Scaffolding as a teaching strategy

The concept underpinning teacher's scaffolding work with students is Vygotsky's zone of proximal development (ZPD). The term is widely and well-known - it appears in many developmental, general and educational psychology textbooks. Vygotsky's definition for ZPD is (Vygotsky, 1978, p. 86):

'the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers'.

On one end of the range is the student's ability level without assistance. On the other end of the range is the student's ability level with assistance. The zone of proximal development bridges the gap between what is known and what can be known. Vygotsky believed that learning occurred in this zone and that social learning leads to cognitive development. He
believed that cognitive change occurs within the zone of proximal development and that instruction should be designed to reach a developmental level that is just above the student's current developmental level. The internalisation process thus begins on a social plane and moves to an inner plane where information becomes part of each individual's evolving knowledge base.

Scaffolding is an effective strategy to access the zone of proximal development. Bruner's metaphorical term 'scaffolding' has come to be used for interactional support, often in the form of adult-child dialogue that is structured by the adult to maximise the child's development or growth. Scaffolding is a term more usually associated with building work - it is an external skeleton that provides the workers with a framework that allows them to complete a building task, but does not support the weight of the building that it surrounds. Scaffolding in the construction industry is a means to an end - it is altered to facilitate building in different directions, and when it is no longer needed it is dismantled. Instructional scaffolding is similarly transient - the adult gradually withdraws control and support as the child develops increasing mastery of a given task. Eventually, the initial scaffolding is removed altogether. To scaffold a pupil effectively, the teacher needs to stay one step ahead of the pupil, always challenging him/her to reach beyond his/her current ability level. The teacher will need to engage the pupil's interest, simplify tasks so that they are manageable and motivate pupils to pursue the instructional goal. Growth occurs within the zone, but if instruction falls outside of the zone (above or below a pupil's ZPD), no growth will occur.

An example of scaffolded teaching is provided by Wood et al. (1976). The task involved teaching very young children how to build a pyramid out of a set of interlocking wooden blocks. The human tutor controlled the focus of attention by demonstrating, through a dramatised presentation, that the task was possible. The task was divided into manageable components and set up in such a way that the child recognised a solution and performed it, even though the child could not do it on his/her own, nor follow the solution when it was simply told to him/her. In general, the tutor did what the child could not do and for the rest, made things possible for the child to complete the task with the tutor, which otherwise the child would not have been able to do. As the tutoring proceeded, the child took over from the tutor the parts that s/he was unable to do under his/her own control whilst the tutor gradually withdrew the amount of support offered. This approach to teaching strategies for building the 'Tower of Nottingham' was later implemented as a computer-based contingent tutoring system - EXPLAIN (www.psychology.Nottingham.ac.uk/staff/Heather. Wood/). Other systems were also developed, such as DATA, designed to help teachers to identify specific problems that pupils may be having with fundamental concepts and skills in arithmetic. Like their
human counterparts, the computer tutors respond contingently to learners' success and help-seeking, trying to strike a balance between allowing learners as much scope for initiative as possible, and supporting them when they are struggling. Computer-based contingent tutoring is explained in more detail in Section 3.5.

2.5.3 The guided approach

The 'horticultural' model (Czerniewska, 1992) of child development underpinning the process approach, in which the teacher's role is to simply provide a rich soil then watch the child bloom, is viewed as inadequate by the authors of the government documents. Whilst the process model prompts ideas for incorporation into pieces of writing, it does not ensure that pupils develop their ideas, nor does it provide assistance in identifying the elements of specific genres such as story writing. The shared and guided approach recommended by The Literacy Strategy builds upon research such as Bereiter and Scardamalia's (1987) that revealed the potential value of teachers modelling writing and channelling children's suggestions. The guided approach allows for the process framework to be developed into one where writing can be taught as a craft, not simply left to emerge from within the child. With this approach, children still retain control over what they write and use writing to discover their own inner meanings. The teacher's role is slightly different however: the teacher of the 'process' also has knowledge about what and how to write, which should be shared with children, although personal expression is always to be encouraged.

Bereiter and Scardamalia (1987) made a number of recommendations concerning the teaching of writing:

- pupils need to be made aware of the full extent of the composing process;
- the thinking that goes on in composition needs to be modelled by the teacher;
- pupils will benefit from reviewing their own writing strategies and knowledge;
- pupils need a supportive writing environment, but will benefit from experiencing the struggles that are an integral part of developing writing skills; and
- pupils may benefit from using various 'facilitating' techniques to help them through the initial stages of acquiring more complex processes, for example listing words which may be used, points to be made or the wording of final sentences etc. in advance of tackling a text.

Shared and guided writing encourages young writers to make valuable connections between text, sentence and word level decisions and can help children redraft and shape texts with particular criteria in mind. So,
Can you tell me more about the dog in your story? Think of other words you could use which mean fierce. Perhaps use a simile to describe what he looks and sounds like when he's growling at the neighbours ... May be the fact that he growls at strangers could prove useful later in your story?

The success of shared and guided writing is likely to be related to the teacher's skill in using dialogue to provide scaffolded understanding of what is involved in writing. Although skilled writing involves maturity of thought, writers also need to know effective techniques for setting scenes, introducing characters, creating suspense etc. Some children pick up these skills from the books they read, but the construction of stories is not self evident to all children. The task for teachers is to make the components of effective stories as well as the thought processes involved, clear to all children.

2.6 Promoting effectively structured narrative writing

2.6.1 Defining structural elements

Narratologists are concerned with narrative structure and the effects that this structure has on the shaping and unfolding of narratives. Over time, narratologists tried to diagnose the same basic abstract structures at work in a huge variety of different narrative forms and texts, which resulted in categorisations of narrative time, narrative voice and plot structure. The most influential theories of narrative are examined here.

Aristotelian theory (Aristotle 330 B.C.) is possibly the oldest investigation of narrative. Aristotle focused mainly on tragedy and identified six main components: Action, Character, Thought, Language, Pattern and Enactment. Aristotle's six hierarchical components were related to each other in one direction, from action to enactment, by an authorial view of the narrative represented by the plot, the formal cause; and in the opposite direction, from enactment to action; by the audience view of the narrative represented by its understanding of the plot, the material cause. The main components of the narrative structure were thus linked by two opposite causal chains.

Propp's (1928) structural perception of narrative was derived from his analysis of Russian folk tales. He identified six sections. The information collected in the Preparatory Section is exploited and prepares the development of the Complication Section. This can be interpreted as the call for action, the logical sequence of events that leads a hero to decision-making, actions and ultimately to leave home and set out on a quest. The Donor Section follows the Complication Section, but the sections are not related to each other by any causal link. They are independent of each other, and have to be implemented in the narrative structure in this order. The hero in this section is tested and receives a magical helper that
proves to be essential for the achievement of the quest the hero is engaged in. The section allows the reader to gain a better understanding of the hero, depending on his/her reaction to the helper or magical agent. This sequence leads the narrative to its peak because it provides solutions to the hero's quest. The Action Section follows. This is a dynamic section in which a series of actions ultimately directly confront the villain with the hero. The Action Section ends what could be described as the first move of the story. At this stage, the author can either repeat the first stage or move onto the Second Move Section and end the story.

Barthes (1966), a post-structuralist, used linguistics as a foundation for the structured analysis of narrative. His work is described by Todorov (1971) translated into English by Miller (1987). Barthes believed in the existence of a universal model to which any story must refer. He argued that the meaning of a story is not something revealed at the end of the story, but uncovered through out it. He identified three hierarchical levels of narrative: Functions, Actions and Narratives. Functions are separated into two sub-classes: distributive and integrative. The distributive class is further divided into two functions: cardinal functions and the catalysis functions. The cardinal functions represent the risky parts of a story while the catalysis functions represent security zones. He also sub-divided the integrative class into two sub-classes: feature based units and informants. The role of feature based units within a story is to establish or amplify behaviours, feelings, atmospheres or philosophies. Informants help with the identification and location of time and space. The Action level of the narrative is represented by the actions of different characters. Barthes defined the narrative level by considering three different narrative approaches:

- the story is delivered by a narrator who is exterior to the author;
- the narrator is interior to the characters by knowing everything about them, but is also exterior to the characters because s/he lacks identification with them; and
- the narrator limits the story to what the characters can see or know, as if each character is a narrator.

These theories and terminology were not developed with a view to helping children understand narrative structure. Wray's terminology (www.warwick.ac.uk/staff/D.J.Wray/Articles/stories) for the elements of a story is more child friendly: start or opening, setting, characters, events, a problem or complication, a resolution and ending. This section is organised around Wray's terminology. Each feature is illustrated with examples of effective writing drawn from novels written by respected and popular authors of children's fiction because they present good models of writing which are particularly relevant to children. Children encounter these models when they read or hear stories. As they become aware of
the many literary techniques that can be utilised when writing a narrative, they can experiment with the different techniques themselves.

2.6.2 Opening

Story openings are designed to grab the reader's immediate attention. An analysis of story openings reveals three distinct styles: action, description and dialogue. Presented here are the opening lines from three novels as examples of each style.

Action

The Arbuckles looked at the cake. Lizzie had just pressed in the last fruit jelly to make the pattern complete. The whole cake was covered in sweets - "A rainbow cake, " Lizzie thought.

(Taken from 'Lizzie Dripping on Holiday', by Helen Cresswell, Lizzie Dripping and a Birthday Wish).

Description

'It was Christmas Eve, and the afternoon had frozen as hard and milky as a pearl. The sun was as thin and pale as a disc of ice in a sky as white as the snowy ground. Irina walked in front of her mother and father along the lane that led across the fields to the village. She was dressed in a sheepskin coat and boots and mittens and a sheepskin hat. Her long fair plait hung down behind her. The cold pinched her thin cheeks, and the trees that grew on each side of the lane poked their black fingers through the freezing fog as if they were trying to clutch at her as she went by.'

(Taken from 'The Enchanted Horse', by Magdalen Nabb, Chapter 1).

Dialogue

"But Mum, I don't want to move house again!" Omri's mother stared at him with her mouth slightly ajar. She turned away for a moment as if she simply couldn't think of a thing to say, and then swiftly turned back.

"Omri, you know what, you're incredible. Ever since we moved here you've done nothing but moan. You hated the district, you hated the street, you hated the house."

(Taken from 'The Mystery of the Cupboard', by Lynne Reid Banks, Chapter 1).

2.6.3 Setting

An important quality in narrative writing is the use made of detail when setting the scene. Literary devices, such as grouping adjectives alliteratively, or making comparisons through similes and metaphors, contribute to the atmosphere, for example C.S. Lewis' evocative description of the ride on the lion's back through Narnia:

'He rushes on and on, never missing his footing, never hesitating, threading his way with perfect skill between tree trunks, jumping over bush and briar and the smallest streams, wading the larger, swimming the largest of all. And you are riding not on a road nor in a park
nor even on the downs, but right across Narnia in spring, down solemn avenues of beech and across sunny glades of oak, through wild orchards of snow-white cherry trees, past roaring waterfalls and mossy rocks and echoing caverns, up windy slopes alight with gorse bushes, and across the shoulders of heathery mountains and along giddy ridges and down, down, down again into wild valleys and out into acres of blue flowers. 

(Taken from 'The Lion, the Witch and the Wardrobe', by C.S. Lewis, Chapter 15).

In this example, C.S. Lewis creates a vivid description using long, flowing, complex sentences containing patterning and adjectival expansion.

2.6.4 Character

Effective characterisation results not only from providing descriptive details of the physical appearance of a character, but also from revealing their inner thoughts and feelings. For example,

'Bald Ben...had huge muscles and was immensely strong. He could lift two people up at once, one under each arm. He hadn't a single hair on his head. Instead, right in the middle, he had a colourful tattoo of a rose, with I LOVE MUM written underneath. Bald Ben didn't like going to sea because it meant missing too much television.'

(Taken from 'The Indoor Pirates', by Jeremy Strong, p.3)

Characters' dialogue can explain what is happening and provide information about their personality. For example, in the novel 'Harry Potter and the Philosopher's Stone' by J.K. Rowling, when Hermione introduces herself to Harry Potter, the reader is made aware that Ron's spell has not worked and that Hermione is a know-it-all and a swot:

'Are you sure that's a real spell? Well it's not very good, is it? I've tried a few simple spells just for practise and it's all worked for me ... I've learnt all our set books off by heart, of course, I just hope it will be enough ... I know all about you ... I got a few extra books for background reading, and you're in Modern Magical History and The Rise and Fall of the Dark Arts ...'

(Taken from Harry Potter and the Philosopher's Stone, by J.K. Rowling, p.79)

Effective characterisation is also achieved through demonstrating how characters' actions determine the outcome of the story. Hermione's comprehensive knowledge of magic, demonstrated at intervals through the story, to the irritation of Ron and Harry, eventually saves the day. Sometimes authors deliberately mislead their readers about a character's personality, for example, Harry, Ron and Hermione are suspicious of the dark and mysterious Professor Snape, but it is the nervous, stuttering Professor Quirrell who turns out to be the dangerous character.
2.6.5 Events

A strong, exciting plot centres on an unexpected event - a crisis, a problem, a twist in the tale, or a complicating action, which needs to be resolved before the end of the story. Some stories contain more than one complicating action. An analysis of children's literature reveals a range of possible story structures. An indication of the variety of plot structure is provided in the examples given in Tables 2.2 and 2.3.

Table 2.2. The structure of 'The witch of Blackberry Bottom' by Dick King-Smith

<table>
<thead>
<tr>
<th>Plot structure</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening</td>
<td>The main character (Miss Slade) is described as a tramp like person, who lives in squalor. She has no friends, except for her animals, as the villagers believe she is a witch.</td>
</tr>
<tr>
<td>Event</td>
<td>A new family moves into the village. The children make friends with her and her animals.</td>
</tr>
<tr>
<td>Past events</td>
<td>The reader is told that Miss Slade is in fact aristocratic and wealthy. An event in the past changed the course of her life: she lost an eye in a bonfire accident and her young man broke off their engagement. She sank into her current squalid lifestyle because she had a broken heart. She keeps her money buried somewhere on the property.</td>
</tr>
<tr>
<td>Current events</td>
<td>Feeling happier now she has some friends, Miss Slade plans to turn over a new leaf by buying some new clothes.</td>
</tr>
<tr>
<td></td>
<td>By chance, Miss Slade drops a gold sovereign whilst out shopping. It is returned to her by a friend. Miss Slade shows her friend where she keeps the other sovereigns. A tramp who happens to be passing by at that moment, witnesses the event unnoticed.</td>
</tr>
<tr>
<td>Complication</td>
<td>When Miss Slade's new clothes are delivered, she trips and is knocked unconscious. Her friends rush her to hospital. Meanwhile the tramp steals her gold sovereigns.</td>
</tr>
<tr>
<td>Resolution</td>
<td>Miss Slade's friends return to her home just in time to prevent the tramp from making off with the money.</td>
</tr>
<tr>
<td>Ending</td>
<td>Miss Slade returns home from hospital looking a different person - she is dressed smartly and although she plans to continue living at Blackberry bottom, she promises to buy new sheds for the animals and a new caravan for herself.</td>
</tr>
</tbody>
</table>
Table 2.3. The structure of 'Spider pie' by Anne Cassidy

<table>
<thead>
<tr>
<th>Plot structure</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opening</td>
<td>• Jack's mum has brought home a tarantula for the weekend because Jack loves spiders. However, the tarantula must be kept a secret from Dad, as he hates spiders.</td>
</tr>
<tr>
<td>Event</td>
<td>• Jack's cousin comes to stay for the weekend. Jack invites his friend round. He shows his friend the spider, but not his cousin.</td>
</tr>
<tr>
<td>1st Complication Event</td>
<td>• The tarantula escapes from its tank.</td>
</tr>
<tr>
<td>1st Complication Event</td>
<td>• Jack lets his cousin into the secret and they look for the spider together. They find it in the video cupboard. They shut the cupboard door, planning to catch it very early next morning.</td>
</tr>
<tr>
<td>2nd Complication Event</td>
<td>• Someone in the family has unexpectedly left the video cupboard door open over night and the tarantula has escaped again.</td>
</tr>
<tr>
<td>3rd Complication Resolution</td>
<td>• The children spot the tarantula in the kitchen. It climbs up the side of the food processor just before it is turned on.</td>
</tr>
<tr>
<td>3rd Complication Resolution</td>
<td>• The children fear the tarantula has been liquidised along with the vegetables destined for the pie they will be eating at supper.</td>
</tr>
<tr>
<td>Ending</td>
<td>• As they start to eat the pie, they notice the tarantula on the window sill. It is captured and returned to its tank, without mum or dad noticing.</td>
</tr>
<tr>
<td></td>
<td>• Jack decides to embark on a safer hobby - studying aeroplanes.</td>
</tr>
</tbody>
</table>

Wray and Lewis (1995) suggest that children will benefit from using specific writing 'frames' to help support their writing. Frames are taken to mean skeleton outlines - a 'scaffolding' - of a text and can include sentence starters and useful words etc. An example of a story frame is provided in Table 2.4.

Table 2.4. Story planning frame (www.warwick.ac.uk/staff/D.J.Wray/Articles/stories.pdf)

<table>
<thead>
<tr>
<th>What will the title of your story be?</th>
</tr>
</thead>
<tbody>
<tr>
<td>What characters will you have?</td>
</tr>
</tbody>
</table>

43
What will happen in your story?

What problem will there be?  
How will this be solved?

How will your story end?

Suspense or mystery in a story is created by building up to events slowly, as in this description of the way the broken parts of an iron man came to be found and reassembled:

'One of the seagulls flew up - Aaaaaark! He had seen something. He glided low over the sharp rocks. He landed and picked something up. Something shiny, round and hard. It was one of the Iron Man's eyes. He brought it back to his mate. They both looked at the strange thing. And the eye looked at them. It rolled from side to side looking first at one gull, then at another...Then the other gull flew up, wheeled around and landed and picked something up. Some awkward, heavy thing. The gull flew low and slowly, dragging the heavy thing. Finally, the gull dropped it beside the eye. This new thing had five legs. It moved. The gulls thought it was a strange kind of crab...They did not know they had found...the iron Man's right hand.'

(Taken from 'The Iron Man', by Ted Hughes).

Pacing has been achieved in this passage through a succession of short, simple and minor sentences.

2.6.6 Ending

Story endings usually bring the story around 'full circle'. The opening and ending from 'Who's a Clever Girl Then?' By Rose Impey illustrate this effectively. The story - a pirate adventure
begins by describing the personality of the main character (Mary Mansfield) as she makes her way to school:

'Once upon a time, and not so very long ago, a little girl was walking to school. She was a sensible sort of girl, who could make her own packed lunch and do her mum's shopping without losing the change. She was also far too sensible to talk to strange men whom she met in the street, especially ones with peg-legs, scars on their faces, patches over their eyes and scruffy parrots on their shoulders. So when she saw four strangers fitting this description, she quickly turned the other way and kept on walking. But the pirates had seen her. She was just what they were looking for...

After having many adventures with the pirates out at sea, Mary returns to school at the end of the story:

'As for Mary Mansfield, she was happy to be back. She became the heroine of the school. She was glad she hadn't missed the play. She was bound to get the part of Captain Hook. All her friends wanted to hear about her adventures. She told them how she captured a band of cut-throat pirates single handed, became their captain, led raids on enemy ships and collected enough treasure to sink a school. At last, when she got tired of the life, she had tricked the pirates into bringing her home. And to prove it - here she was.'

(Taken from 'Who's a Clever Girl Then?' By Rose Impey)

The final two sentences, written as an aside to the reader, succinctly sum up the message of the story:

'She was, after all, a very clever girl. But then, most girls are, in my experience'.

2.7 Promoting mature grammar

Pupils have not been explicitly taught grammar for the past 30 years. It had been assumed that grammar teaching did not improve children's writing, a legacy of Wilkinson's (1971) review of studies concerning grammar teaching, from which he had concluded that the claims for grammar teaching were without 'foundation'. It is only recently that this belief has been reconsidered, prompted in particular by Tomlinson (1994), who drew attention to the weaknesses in some of the studies reviewed by Wilkinson. The current approach to teaching grammar is based on the work of linguists such as Crystal (1995) who recognise the limitations of grammar teaching which concentrates on discrete 'naming of parts' and parsing in decontextualised text-book form. Instead, there should be a concern with how the use of different words and phrases in the various parts of sentences add interest and reflect particular genre features.

2.7.1 Sentence construction

The components of sentences are briefly explained in this section, together with ways of constructing sentences. Variety in writing is achieved by:
• creating different clause structures;
• by using different kinds of sentences (statements, questions, exclamations and directives);
• by varying the numbers of words contained within each clause, grouping them into phrases (noun, verb, adverbial, adjectival); and
• by using different types of sentences (minor, simple, compound or complex).

Clauses are created through the combination of up to five elements (subject, verb, object, complement, adverbial element).

• The verb element is the only essential element in a clause. Finite verbs are marked by endings to show tense, number, mood and aspect.
• The subject expresses the theme or topic.
• The object can be one of two kinds - direct, which refers to who or what is affected by the action of the verb and indirect which refers to something or someone who is the recipient of the action involving the verb and direct object.
• The complement expresses further information about either the subject or object and needs to agree with this other clause element in number (singular or plural).
• The adverbial element provides further information about the time, manner, place and reason of the actions of the verb. This information can be provided at several different places in the clause. The flexibility of the adverbial element results in subtly different sentence constructions.

Seven clause structures are possible with these five elements:

i) Subject, verb
ii) Subject, verb, direct object
iii) Subject, verb, complement
iv) Subject, verb, adverbial element
v) Subject, verb, direct object, indirect object
vi) Subject, verb, direct object, complement
vii) Subject, verb, direct object, adverbial element

There are four types of sentences:

i) Minor sentences consist of a complete thought summarised in one or two words. Interjections are classified as minor sentences.
ii) Simple sentences consist of one independent (main) clause. A simple sentence requires a minimum of subject and verb.

iii) Compound sentences are multiple sentences that link two or more independent clauses together. There are several ways this can be achieved: by using conjunctions (and, but, or, yet), commas, substitution (where the common element in the sentence is replaced by a pronoun) and by ellipsis (where the common element is omitted - usually in the second clause).

iv) Complex sentences are multiple sentences that link an independent (main) clause to dependent (subordinate) clauses (using commas and/or connectives in conjunction with personal or relative pronouns).

Research by O'Hare (1973) and Shaughnessy (1977) suggests that 'sentence combining activities' can assist the development of writing competence as well as providing insights into grammatical structures. Shaughnessy recommends combining activities that involve:

- changing simple sentences to complex;
- changing complex sentences to simple;
- changing simple sentences to compound;
- changing independent clauses to dependent; and
- changing dependent clauses to independent.

O'Hare (1973) suggests activities such as:

- Turning statements into questions: 'The King is ill. How is the King ill?'
- Adding details of 'how', 'where', 'when' and 'why': 'The bird quickly hopped across the garden, picked up the bread and immediately flew off'.
- Combining sentences using a variety of connectives e.g. if, with, what, when, as, etc. For example: 'She wondered if she would make it to the top of the mountain'.
- Combining sentences by changing the verb to its 'ing' form: 'Looking up he noticed …'

Other features which can help add maturity to pupils' writing style include:

- clefting - making two clauses out of one and putting the word to be emphasised at the end of the first clause by starting with 'It was', e.g. It was Bill who spotted it first;
- thematic variety - avoiding excessive repetition of the same subject by varying word order so that emphasis is given to new information in a sentence, by for example, placing the information at the end of a clause, starting with a verb stem + ing or clefting; and
overall coherence - using pronouns clearly, being consistent in the use of tenses, and by maintaining genre consistency.

2 Vocabulary

English Language is infinitely variable and adaptable. Children's language awareness of variety and adaptability will come from their experience of using language. Adjectives and adverbs can be used in different ways to describe details:

A group of up to three words can be used to describe the appearance of people and creatures etc. for example: 'I was face to face with a giant, hairy, orange caterpillar'.

They can describe the action in a sentence for example: 'Tom sang loudly'.

They can describe how characters are feeling like this: 'The cold air made Andrew cough'.

They can describe the mood of the scene like this: 'Miserable, he shivered in his wet T-shirt'.

Words can be grouped together to create alliteration, onomatopoeia and assonance etc. Images can be created using similes or metaphors etc., for example: 'Max's shadow was like a monster' or 'Peter was a lumbering elephant on the racetrack'.

Shaughnessy (1977) suggests that by discriminating between words, writers discover the litties of their ideas. The process whereby writers make conscious choices is not ervable, but pupils can experience the process through activities such as:

substitution - taking words from the pupils' own writing and asking them to list alternatives;
looking at the first drafts of others to see how the writers 'debated' word choice; and
reading what has been written and think about why writers chose certain words or developed the text in a particular direction.

chers face an enormous challenge helping children to acquire vocabulary - the 'building :ks' of the writing process. Shaughnessy's research indicates that there appear to be born and individually different limits to the pace at which words can enter our active abulary.
2.7.3 Punctuation

Good writers punctuate their writing accurately. By displaying the grammatical structure they make their texts clear for others to read. To begin with, children are taught to use capital letters, full stops and question marks. Later, exclamation marks and inverted commas are expected. Robinson (1996) reports that teachers find some punctuation marks easier to explain than others. The teachers in her study reported how they found speech marks relatively easy to explain, commenting on the technique of using speech bubbles to demonstrate where speech marks are required. They considered speech marks to be within the grasp of children. The teachers commented on how children enjoy using exclamation marks, learning in particular how one word, such as 'Help!', can be punctuated with an exclamation mark. Question marks were also considered relatively easy to explain - if someone asks a question, starting with a word such as 'who', 'which', 'where' etc., it is fairly apparent where the question ends. Interestingly, none of the teachers commented on how they taught commas. The reason for this may have been because of their preoccupation with the problem of how to help children learn where to place full stops.

The main difficulty for children is working out what a sentence is. Notions of full stops and capital letters make little sense without some concept of sentence, as they mark sentence boundaries. Strategies for teaching fall into four categories (Robinson, 1996) although many teachers use a combination. The categories are: grammaticality, meaningfulness, pausing and facilitating intuition. Grammatical explanations are considered inappropriate for the primary school age range, although teachers talk about sentences containing verbs and nouns etc. Teachers sometimes define a sentence as a 'complete thought' or a group of words which make sense. These are ambiguous explanations and are as unhelpful to children as grammatical explanations. Kress (1982) has shown that children group words into meaningful chunks when the words often add up to more than a single sentence.

The main explanations used by primary teachers for where to place full stops are pausing and intuition (Robinson, 1996). Children are frequently told to put a full stop where they can hear a long pause in a sentence or 'where you take a breath'. A long pause indicates the need for full stop, a short pause indicates a comma. There are two problems with these explanations. First, there is an inconsistent relationship between pausing and punctuation. Oral speech does not always have pauses between those items which would in written language be seen as the boundaries between sentences, while it often does have pauses where no punctuation would be placed in written language. The second problem is that it relies on the child being able to hear the pauses, or lack of pauses, when reading the text.
However, a child's own reading may not provide a good model - some children scan ahead whilst reading and know where to take a breath, whereas others take a breath anywhere, even if it is not at the end of a sentence.

Some teachers accept the difficulty of the above types of explanations and try to get children to 'feel' a sentence. This is achieved by giving children good experience of reading texts with punctuation, through correction, partly through exercises asking children to place full stops in written text and partly through demonstrations on the board. The expectation is that children will develop a feel for what counts as a sentence.

Whatever explanation teachers adopt, it is clear that children learn to use punctuation more effectively when they are taught to use it in context, rather than through the use of drills and exercises (Crystal, 1995). Analysing children's progress in learning to punctuate, Cordelio et al. (1983) noted the importance of the approach adopted by the teacher in their study, who 'conferred' individual children whilst their writing was in progress. Crucially, punctuation was not brought into focus until the final (editing) stage of production. The primary focus was always on content. The authors concluded that teachers who concentrate on skills at the expense of content, may actually be doing their pupils a disservice when it comes to learning punctuation. Smith's (1982) research confirms that young writers need to concentrate in the first instance upon the content and coherence of their texts - preoccupation with correct punctuation and spelling can stifle children's flow of ideas.

2.8 Promoting the mature writing approach

Several approaches for encouraging children to increase the amount of revision they undertake (the hallmark of mature writing) have been researched. One successful approach was an artificial feedback system of revision cards devised by Bereiter and Scardamalia (1983). The revision cards contained a single statement a teacher might make, such as: 'I'd better give an example, I'd better say more, or I'd better change the wording'. The children used the revision in one of two ways: either writing a story first, then revising the text sentence by sentence afterwards with the assistance of a revision card which fitted the sentence, or pupils used the cards while they were in the act of composing their first drafts. Both techniques showed promise. The pupils agreed that the cue cards helped them improve their writing and independent judges agreed with their revisions. The researchers concluded that pupils needed more practice with such a strategy, if stories were to show overall improvement.
Other studies indicate that improvements in children's writing will only result from external evaluations provided by peers or teachers. Trushell (1986) noted that collaborative writing had the effect of moving children towards achieving more thoughtful, sophisticated writing. Hillocks (1982) discovered that children produced better stories when they revised in response to teacher questions directed at specific content. Caution has to be exercised with this approach however. Sommers (1982) found that teacher comments often took pupil's attention away from their own purposes and focused it on those of the teacher.

2.9 Implications of the research for a new computer tool
The research outlined in this chapter indicated that the new computer tool needed to develop the 'what next', knowledge telling approach to writing adopted by children into the knowledge transforming approach of mature writers, a process which is usually slow and difficult. The tool should allow children to experience the thought processes of mature writers, however, the tool should also explain techniques for writing interesting openings and endings, introducing characters, setting scenes and creating suspense etc. and provide assistance with detecting and correcting grammar errors. Therefore, the approach needed to focus on both the process and the written product. The aim when designing a new computer tool was to facilitate the model of teaching recommended by The National Literacy Strategy - a combination of the process model and the guided approach. This required the creation of a conference situation, where, in the absence of a human teacher, the child receives guidance from the computer about all aspects of writing, but where control over exactly what to write remains with the child. As the computer needed to act as a response partner would - asking questions, offering an alternative perspective to consider, providing ideas which would inspire children to think of original ideas of their own and making pertinent suggestions, a system which could provide conversational prompts was required.

Before developing a new tool to implement the approach identified above, a review of commercial software, related web sites and academic prototype systems was considered essential, as it would provide useful information about the approaches adopted by others. Chapter 3 presents a review of alternative systems designed to assist children with writing.
Chapter 3
WRITING APPLICATIONS - A REVIEW

3.1 Introduction

A variety of computer tools designed to assist children with writing are reviewed in this chapter. A few typical examples chosen from the many hundreds of different commercial software packages currently available to schools and examples of web sites representative of the different styles, have been selected for analysis. Examples of prototype writing systems, developed to test various hypotheses for academic research projects, are also reviewed. These systems are presented chronologically in order to indicate the development of academic systems designed to assist pupils with writing. The main functions of each writing tool together with their benefits and limitations are discussed. As a tool was developed alongside the new writing system to provide an objective assessment of stories produced during the school study, examples of alternative automated assessment tools are also presented in this chapter.

3.2 Commercial software packages

A considerable range of commercial software designed to help children with writing is currently available (www.r-e-m.co.uk). The software can be categorised into: drill and practice programs; programs that enable children to build sentences either from pre-written words or by predicting words; programs which exploit the motivational power of pictures to get children started; programs designed to assist with the planning and organisation of texts; word processing packages and intelligent systems providing text analysis.

3.2.1 Drill and practice programs

Drill and practice programs such as 'Hooray for Spelling' (Lander Software), provide decontextualised exercises, aiming to teach skills such as punctuation, grammar and spelling. They usually employ exciting graphics in fun arcade style games. The approach is derived from the traditional 'sub-skills' way of teaching writing based on the assumption that the writing process can be broken down into discrete elements, taught separately, then reassembled and that this will result in a total mastery of writing. The research discussed in Chapter 2 (such as Crystal, 1995) suggests that this approach to teaching grammar does not promote better writing; it has little effect on pupil's ability to put full stops in their own writing where convention demands or link sentences in ways that exploit the resources of the
language. Playing with someone else's sentences etc. prevents pupils from discovering how to make language work for them. So, whilst children may be able to successfully complete the missing blanks in textbooks or achieve high scores with the computer games, they may not transfer the knowledge gained into practice when writing. A better approach is to identify places in children's own writing and show them how their writing can be improved grammatically.

3.2.2 Sentence building programs

Programs that enable children to build narratives from pre-written story segments, such as 'Clicker 4 (Crick), ask children to place given words or phrases into sentences. This software is aimed at young writers and those with special needs who need help with constructing sentences. Co:Writer (Don Johnston Software) targets children with special needs whose main writing problems are caused by an inability to locate the letter keys on the computer keyboard quickly. It relieves the child's frustration with writing caused by being unable to record thoughts quickly, by accurately anticipating the words a child wishes to use, thus enabling the child to click on 'ready made' words, positioning them in the appropriate place on the page as the child writes. 'Literacy Maker' (Edu Tech Systems) teaches phonics, spelling and grammar. Teachers can demonstrate how to arrange words to create sentences and how to put sentences together to create passages. Again, this program is of value to pupils who are at the early stages of learning to write, where the main objective is to convert thoughts into words.

3.2.3 Programs which exploit the motivational power of pictures

Software such as 'Story Book Weaver' (Europress) offer a gallery of graphics (backgrounds, characters and objects) from which to construct pictures. The child can then write about the picture. Several pages (containing pictures and text or just text) can be made. It is recognised by the authors of this style of program just how intimidating an empty page can be. Building a picture first can inspire a story line, although this may be limited by the availability of relevant pictures. Some help with spelling is given, as the appropriate word is provided with each picture which can be pasted into the text. The pictures, which are sometimes accompanied by sound effects, are intended to provide the motivation and encouragement for children to write, but offer no assistance with how to write or how to improve a text. The deluxe version has speech synthesis to enable children to hear words they may be unable to read and to hear their story read back to them by the computer.
Packages such as this are most useful with beginner writers and disaffected pupils who need extra motivation.

3.2.4 Word processors

When micro computers with word processing facilities were first introduced into schools in the 1980s, they seemed to offer great promise as a tool for writing. Many publications at that time speculated on what word processing in schools offered the teaching and learning of writing. The Kingman Report (1988 p.37) outlined the gains as follows:

'The word processor, with its ability to shape, delete and move text around, provides the means by which pupils can achieve a satisfactory product...the process of writing - redrafting through editing to proof reading and publishing - is one which children take to with enjoyment'.

Anecdotal evidence from teachers as to the benefits of word processing abounded. Teachers involved in 'The Humberside Project', part of 'The National Writing Project' (1990) for instance, observed how children writing at the computer constantly read through what was displayed before them on the screen and how the flashing cursor seemed to prompt the writer to write more - the blinking made the children believe that more text was expected. However, one six year old summed up the main benefit of word processing as perceived by children - the neat end product:

'I like using the computer because it has a delete presser. If you use pencil and you rub it out it is dirty'.

Computers did not, as widely anticipated, revolutionise how writing was taught and did not lead to real improvements in writing. In fact, word processing sometimes resulted in worse writing than hand-written texts. The act of typing was clearly tiresome, children produced less than when they wrote by hand and frequently made more errors (Robson, 1986). Teachers recognised that word processors did not teach children how to write and that computers, far from taking over the job of a teacher, required that teachers needed to intervene more than ever. For instance, whilst it was easy to show children how to cut and paste or delete and insert words etc., it was far harder to get them to notice places in their writing that required altering (The National Writing Project, 1990). Moreover, as Baskerville (1986) for example found, although children make more revisions when writing with a word processor than by hand, these revisions do not necessarily lead to improvements. The conclusion of the research is that word processing alone will not help children to improve their writing. It is a useful tool, but it needs to be supplemented with strategies designed to help children write and then improve what has been written. MacFarlane (1997) points out that inspection
evidence suggests that word processors are still being widely used in schools as an amanuensis to help produce more presentable end products.

Software companies however appear to have concentrated on simplifying word processors to make them easier to use by children, rather than add any further assistance. Often they are made more straightforward to use, but this is sometimes because they omit many of the functions available with adult word processors such as the ability to centre or underline text, or highlight words in bold or italic lettering denying children the pleasure of playing around with the appearance of their texts. Packages such as 'Easypage' (Porters Primary Software), 'Write:Outloud' (Don Johnston Software) and 'Textease Primary' (Softease), by incorporating speech synthesis aim to offer extra help with spelling and sentence construction. As with word processors designed for adults, redrafting is technically possible, but guidance for what should be revised is not offered and no assistance is given with subject matter.

3.2.5 Organisational tools

Some writing packages are designed primarily to help children with story organisation. 'I can write' (Resource) guides children through 'writing frames'. 'Draft:Builder' (Don Johnston) and 'Writer's Toolkit' (Learning and Teaching Scotland) are tools which aim to take children from the planning stages to the finished text. Both programs provide assistance with various types of writing such as scientific reports, newspaper style articles, letters and stories etc. 'Draft:builder' is targeted at children with special needs. The child receives assistance with the organisation of a specific style of text, then the created framework is exported into the writing package normally used for writing, such as MS 'Word' or their own 'Co:Writer'. When writing a story children are encouraged to think about aspects such as the setting or character descriptions, although no guidance is offered for what to write about.

'Writer's toolkit' helps children structure their texts by breaking the writing task into stages. Support is provided at every stage - from getting ideas down to formatting the final piece of work. Writer's toolkit takes a methodical approach. At the start, pupils have to focus on the 'audience and purpose', and helpful tips are provided at the relevant stages on how to write for that particular audience. Pupils are encouraged to begin by making notes using the 'Who, When, Where' notepads for writing details about characters, places and times. From these notes they then develop a structure for their writing by moving bulleted points around until they are happy with the order. Long notes can be collapsed so that only the first line is viewed. Next, they are encouraged to expand on the individual notes before checking that the punctuation and spelling are satisfactory. The completed piece of writing can then be
formatted using word processor facilities. Guidance is provided for the most appropriate layout and style for the particular type of writing. As a final stage, pupils are encouraged to reflect upon their writing. There are four additional features: a word builder, a thesaurus, a sentence count button, and a record maker. The word builder is a separate program that enables pupils to store nouns together with two associated adjectives and an example sentence. The thesaurus provides a choice of synonyms and antonyms and a facility to replace the original word with the new one. The sentence count button warns pupils if they have not used enough sentences. The record maker, which has room for teachers to record their comments, records pupils achievements and assessments. Although facilities are thus available for revising, such as a thesaurus and sentence count facility, no guidance is given for where or when to make changes and little guidance is given for how to write or what to write about.

3.2.6 The writing process

Writer's Helper for windows offers activities and tools designed to help students of secondary school age or older with prewriting (brainstorming and planning) and revising. Students can use the Prewriting Activities to find an idea, explore a topic, and organise information for an essay. They can save the ideas and export them to a word processor. Students can use the ideas generated in the Prewriting Activities as a framework to write a draft. Students then return to Writer's Helper, import the draft from their word processor, and use the Revising Tools to check for usage errors and possible structural defects. The system features 19 prewriting activities. Find activities (Starters, Idea Wheel, Associations, Questioner, Lists, Brainstorms) help students choose a subject and view it in different ways. Explore activities (Crazy Contrasts, Three Ways of Seeing, Audience, Random Revelations, Connections) lead students to think about their writing topics in new and interesting ways. Organise activities (Trees, Debating an Issue) help students prepare a structure before they begin to write. The tool offers 18 revising tools that guide students in finding structural problems and grammatical errors in their writing. Structure tools (Outline Document, Paragraph Coherence, Paragraph Development, List by Sentence, Sentence Lengths) help students assess the need for structural changes. Audience tools (Diction Level, Transitions, Prepositions, Readability Index, References, "To Be" Verbs, Sweet or Stuffy?) guide students to match their writing to the needs of their readers. Checks tools (Usage, Homonyms, Gender) detect errors in word choice, locating such common problems as homonym confusion and sexist language.
A student who uses Writer's Helper to write an essay might start by finding a topic to write about through 'Brainstorms' - a free writing exercise which requires the user to type any thoughts which come to mind. The writer can then reread the recorded ideas to find the most interesting. Alternatively, the student might prefer the 'Questioner' section, where the user is expected to answer up to 20 questions such as: 'Who is the strangest person you know?' It is anticipated that answering the questions will inspire the user with an idea for a topic. If the student has an idea for a topic s/he can explore the topic before writing, through the 'Crazy Questions' section, which asks the user to compare the chosen topic to various things chosen at random. It is anticipated that the clash of disparate elements will spark ideas. For example, questions for a topic about computers might suggest comparing computers to a new baby, a potted plant and a day old meatloaf or find ways computers are like an iceberg. The questions could encourage the writer to think of many metaphors and similes. 'Three ways of seeing' offers a more methodical approach. Questions include for example: 'What is the dominant characteristic of computers? What has changed about the appearance of computers? What used to be least attractive to people about computers? Why has there been this change?' 'Trees' lets the writer cluster ideas under sub-headings. 'Debating' helps the writer see both sides of an argument. The 'five paragraph theme' demonstrates how an essay might be organised. The opening paragraph combines the writer's statements of audience and purpose. The middle three paragraphs consist of a topic sentence followed by four supporting statements. The final paragraph sums up the three main ideas. Once the draft has been completed, the writer can access the evaluating options. 'Outline' lists the first sentence of each paragraph so that the writer can check for the progression of ideas, or can break each paragraph into sentences to examine structure and transitions by providing, for example, readability scores, word counts, to-be verb hints and homonyms.

Research concerning the tool's effectiveness by, for example, Posey (1992) suggests that the greatest benefit of the tool is that it changes students writing attitudes and approaches, and increases their motivation to write. More students reported enjoying writing after using the tool for a semester and were prepared to rewrite papers until they were satisfied with them. Neither statistically or qualitatively superior writing was demonstrated by the study, although it was reported that a high percentage of students passed the writing course. Several limitations were identified. The variety of prewriting and revising options is one of the program's strengths, but the number of choices poses a problem. Students can feel overwhelmed by the variety of options. Teachers will need to review all the options first in order to guide students towards the most appropriate features. Writing will only improve if the writer analyses his/her writing according to the evaluation routines and follows the suggestions. The software is only useful if students understand what to do with the
information provided. Weaker writers may not know for instance how to lengthen a sentence or improve their writing for an intended audience - therefore the tool will need to be supplemented by instruction from the teacher.

3.2.7 Text Analysis

Text analysis features which provide writers with feedback about their texts are only available as part of applications designed for use by older students or in the business world. Word processors such as Microsoft Word offer some assistance by, for example, highlighting sentences longer than 50 words and extra spaces inserted between words etc. Applications such as 'Writer's Helper' (detailed in the previous section) and 'Writer's Workbench' carry out quantitative analyses of such features as word frequencies (highlighting for instance, subordinating conjunctions, common and over used words), sentence lengths (so that the writer can see where to add variety) and readability scores (allowing the writer to adjust the formality of the writing) etc. The analysis made by Writer's Workbench is detailed here to illustrate the kind of information these tools make available and how the information is presented.

With Writer's Workbench, the 'organisation' section prints the first and last sentences of each paragraph so that the writer can check each paragraph contains a clear theme. The 'diction' section underlines all uses of the verb 'to-be' and suggests phrases such as 'in order to' can be shortened to "to". The 'spelling' section lists mistakes and highlights homonyms. Split infinitives and errors in punctuation are also identified. The 'variation' section details the percentage of sentences which are complex, and indicates whether the score is better or worse than usually found in good papers. Good average sentence length is identified as being 16-26 words. All sentences longer than 50 words are listed and the writer receives the suggestion to break them down into simpler sentences. The 'style' section lists the percentage of 'to-be' verbs, prepositions, passives, sentences starting with prepositions, sentences starting with articles, average word length, percentages of each part of speech (nouns, adjectives, prepositions, pronouns, adverbs and conjunctions) and the percentage of abstract words (e.g. kind, mean, interpret, particular) indicating that the text can be improved by adding more specific details and concrete illustrations. Finally, four readability scores are presented (Kincaid, auto, Coleman-Lian and Flesch). Thus, the analysis supplied by Writer's Workbench is very detailed - a paragraph containing 100 words might generate several pages of feedback!
It is difficult to see how presenting this kind of information could help writers revise - how numerical ranges and percentages could lead to qualitative changes. Writers would need to interpret such quantitative information to appreciate that, for instance, their writing is composed of predominantly complex sentences of similar length and lacks simpler constructions, or that many of their sentences start in a similar way, such as with a preposition, and they would need to know how to improve their writing so that it contains more varied sentence constructions. The approach adopted by revising tools such as Writer's Workbench is unlikely to be helpful to young children, as research such as Bartlett's (1982) suggests they need guidance that explains specific places for where changes could be made and how to make improvements. A quantitative analysis of children's writing might be of use to pupils however, if the features analysed were made specifically relevant to children's writing and if the analysis was presented in a way that is helpful to children. How quantitative analyses could be utilised in both the writing and assessment tools was a focus of the project and is described in Chapters 4 and 5.

3.2.8 Automated assessment software
Commercial software specifically designed to assess aspects of children's writing, by for example, interpreting quantitative information, does not appear to exist, although Microsoft Word, for example, provides statistics on the number of pages, words, characters, lines and paragraphs, which may interest children. The Intelligent Essay Assessor is a commercial web-based tool which grades older students essays in subjects such as history and psychology according to their content. The system is discussed in detail in Section 3.5.

3.3 Related web sites
A number of story writing sites exist on the web serving three main functions: help in the form of top tips, pre-writing ideas (either a title, an opening paragraph or randomly generated suggestions for items to be included) and places to simply publish stories. Judging by the literally thousands of stories written by children, which are published on the web, these sites are popular.

3.3.1 Sites providing 'top tips'.
Story Writing (www.blackdog.net)
This site is typical of the many textbook/revision guides also available to assist children with writing, which attempt to explain how to write good stories. The different components of a story such as setting, character and resolution are identified together with the kind of
information needed in each of these categories. The assumption is that the child will first read then act upon the advice given, producing a better story as a result.

Channel 4's Homework site (www.homeworkhigh.co.uk)

In the style of a pop magazine agony aunt column, this site displays answers to previously asked questions about any aspect of the curriculum. Typical questions about story writing include: 'Can you tell me what a good story needs to have in it? How can I start my story? Children are expected to gain assistance for their own story writing homework from the answers provided.

3.3.2 Sites for publishing stories.

Storyteller (www.edbydesign.com/storyteller/)

At this site, it is possible to add a story or read someone else's. Over 8000 stories are available, rated by the editor from (1-5), from good effort to outstanding author. Many ideas for themes are provided, such as stories concerning the further adventures of established characters e.g. Harry Potter or the currently popular pokemon characters. Conventional titles such as 'Journey' are also offered. It is anticipated that reading the stories already published on the site will act as inspiration to another writer as well as perhaps giving the author the pleasure of seeing his or her name in print. The grading system, whilst confirming the success achieved by the author concerned, may indicate to other writers what makes a good story.

Kid Story (www.kidstory.com)

Kid story encourages children to write a story whilst visiting the site. A box is provided, limiting the story length. Spellings are corrected for the child before the story is published on the web. Unfortunately, the site is sometimes pronounced 'full' and unable to accept any more stories for publication, reflecting perhaps the unmanageable size of the audience. There is a library of children's stories from all round the world and children are encouraged to give the authors of these stories feedback.

3.3.3 Sites providing a pre-writing stimulus

Writers Online (www.englishonline.co.uk/writers/)

At this site, children are encouraged to write and submit stories, in response to, and in the style of, an extract from a well-known author. Although little assistance is provided before
children write, other than the example of the author's writing style, children are promised feedback on what they write from an established author.

**The BBC web site (www.bbc.co.uk)**

The BBC web site has an area containing a story writing competition. The beginning of a story written by a famous author is displayed. The user is expected to continue the story. This can then be submitted, but only the best ones are displayed on the site. Leaving the site results in the contents of a partly completed story being deleted. The writer is expected to correct the spellings before submission which would either involve adult assistance or transferring a story from a word processing package.

**Instant Muse Story Starter (www.artofwritingzine.com)**

Geared at older writers, this site aims to spark creativity. It offers a writing prompting tool based on the creativity technique called random input. The idea is to get writers thinking "out of the box", by injecting random elements into an existing story, or to help blocked writers jump start a new story, by using the "givens" randomly generated. Key elements for a story are randomly given including a main character, a key object, a setting and a theme. Writers are expected to use the ideas in a story, then enter it for a competition.

**3.4 Writing systems**

This section outlines some academic prototype systems. They are presented chronologically to highlight the progression of the associated research.

**3.4.1 Early writing systems**

TOPOI (reported by Constanzo, 1989) was designed to demonstrate that a computer could hold a 'turn taking' conversation about specific topics in a style similar to that of ELIZA (Weizenbaum, 1976). It was intended to act as a pre-writing aid. A system of prompting questions guided the student through the process of 'brainstorming' ideas for a topic. By asking rhetorical questions, writers could systematically explore their knowledge of a given topic. For example: 'What special experiences made you select aerobics as your topic? Define aerobics.' etc. At the end of the questioning it was possible to print out all the responses, giving plenty of material from which to write an essay. Later versions of TOPOI attempted to show that the computer had a personality, for example:

**Computer:** Relax now Jane and enjoy this brainstorming session. What is the opposite of aerobics?

**Reply:** I'm not sure, but I think weightlifting is pretty much the opposite.
After a session of perhaps 24 questions, the student who began with little to say about a topic, might find him/herself full of ideas. By prompting with a fixed set of questions in a random or pre-determined sequence, it aimed to draw out information and apparently understood what the student wrote. One limitation was that, like ELIZA, it accepted any response as if it were appropriate.

TOPOI was developed into programs for prompting children to think of ideas for inclusion into a story. Free Education Writer displayed prompts in a box on the screen. Writers scrolled from box to box, typing their responses to each prompt. Later, the prompts could be removed automatically, leaving the writer's own words to be revised and refined through the magic of word processing. 'Story tree' prompted the writer to create sections or branches to follow on from the first page. The program was designed for writing stories that have several possible continuations or conclusions at major text junctures. Young writers followed a scenario of 'what if' options. At each decision point, their story could branch in one of several directions. It helped children with thinking about plot possibilities. For example, a child could be asked: "What happens if you make friends with the dragon? What if you run away?" However, the system encouraged simple 'what next?' responses, such as: "I ran away from the dragon and never saw it again." Another program used keyword markers for topics in sections such as: coach journey, museum, lunchtime, picnic, aquarium, home. Paragraphs were stored under these keywords and then arranged into order. Alternative approaches included composing from given outlines. Children either added details, such as character descriptions, in the appropriate places or expanded the beginning, middle or end sections, not necessarily in sequential order. The main limitation of these systems was that they were based upon a linear model of writing - first pre-write, then write, and finally revise - they concentrated on composition without providing ongoing support for revision or feedback concerning where improvements might be made etc.

3.4.2 CATCH

The purpose of CATCH (Daiute, 1985) was to research the effects of prompting facilities upon young adolescent writers' revision skills. CATCH presented prompting questions designed to encourage young writers to revise a text before, during, and after, it had been written. The system was simultaneously concerned with both revising and editing. At any time during or after composing a text, the writer could request a list of CATCH features. Some prompts, based on pattern analyses, offered help with editing, by identifying words or
phrases that could be improved upon. For example, the detection of unnecessary, empty words such as 'sort of' and 'well' resulted in the prompt: 'the highlighted words may not be necessary. Do you want to make changes?' Others were designed to assist with revising the content of a text, for example, 'Does this paragraph include details that help the reader see, hear, feel or smell what you're talking about?' The decision for making any changes was therefore left to the writer.

Daiute (1985) reported that the system was largely unsuccessful. The general nature of the composing prompts over estimated the revising capabilities of young children. Insufficient help was given by non-specific prompts such as 'How can I make my character seem more real?' Comments made by the children involved in the study seemed to demonstrate this point. In response to the prompt: 'Do you need to make any changes here?' a nine year old replied: 'That doesn't really help me because I don't know. I'd rather someone just corrected my work'. The specific editing suggestions were more helpful: another child in the study commented: 'the long sentences feature helps me find run-ons and other problems because it makes me read my sentence'. However generally, the editing prompts failed to highlight features, which when corrected, would lead to real improvements. Furthermore, already proficient writers who used the system had better revising strategies of their own. Daiute's experience indicates a better approach that could be adopted - an approach where explicit guidance for revising and editing is offered.

3.4.3 The Writing Partner
The Writing Partner (Zellermayer et al., 1991) was also designed to assist adolescent writers shift towards adopting the reflective approach characteristic of mature writers. Initially, the research focused upon investigating whether the tool improved adolescent writing performance, then, whether the tool helped to improve their subsequent writing, through a process of internalisation, fostered by repeated use of the tool.

The tool offered four kinds of assistance:

1. The system guided the writer through a forced process of planning a story. When brainstorming, the writers suggested a number of basic ideas, selecting from each an appropriate keyword, and decided through a choice of an icon, what status (good or bad character, triggering event, a conflict etc.) this idea had in the planned story.

2. When outlining, the tool, on the basis of the icons not chosen, could comment that certain elements were missing from their ideas list (for example, 'your story has no
Outlining was carried out with the icons, each representing a narrative element (character, setting etc.) and the keyword associated with it. The writers dragged the icons on the screen to create the desired outline of the story. At the end of the planning stage, all entries could be reviewed. The writers then moved on to the writing.

3. When writing, writers could ask for ongoing assistance. This assistance appeared in the form of expert-like questions that were dependent upon the keywords typed earlier. The third kind of assistance available was designed to help writers when they felt 'stuck' - plot ideas and suggestions for words and sentence constructions were supplied. This led to another level of guiding questions to facilitate self diagnosis and sometimes specific suggestions, such as: 'Think of the following openings of sentences' or 'If this were a movie, what would happen next?'

4. Lastly, the tool provided memory support. At each point in the process, the writers could retrieve their idea lists and outlines, thus they did not have to rely on their memory.

A limitation of the tool was that it offered assistance with planning, composing and revising, but not editing. Furthermore, the system did not explain writing techniques or detect weaknesses. Another limitation was that the effectiveness of the tool was entirely dependent upon the extent to which the users made use of its facilities. However, the system is reported as being successful (Zellermayer et al., 1991). Students reported expending more mental effort, produced better essays, showed evidence of internalising its guidance and wrote subsequently better essays when writing with a paper and pencil. Moreover, it seemed to increase their motivation to write. Of perhaps greater significance was that when the effects of the computerised guidance were compared with live guidance given by tutors sitting next to each writer, the latter arose visible irritation and psychological reactance, none of which were manifested when students worked with the computer system.

3.4.4 T'rrific Tales

T'rrific Tales (Brna and Cooper, 2000) was designed for Year 1 children (5-6 years) and was developed within the context of NIMIS, a research project involving the design and evaluation of a 'classroom of the future'. The research undertaken with T'rrific Tales focused upon investigating how recent developments in computing could be utilised in a system which actively promoted collaborative writing as a means of helping very young children write stories of a higher quality.
The design of Trrific Tales reflects the specific needs of Year 1 children - namely that 5-6 year olds usually lack the necessary literacy skills, particularly at the start of the academic year, for translating their often good oral telling skills into writing and they find it difficult to work collaboratively. Typically, when writing, Year 1 children request frequent help from their teacher, but assistance is often delayed due to the number of children simultaneously wanting help. The system offered four main kinds of assistance: pictures, word banks, speech synthesis and opportunities for collaboration, in order to provide an alternative source of support to the class teacher.

The screen is divided into two broad areas. The resource area on the left-hand side, contains a gallery of pictures (sub-divided into speech balloons, settings, things, people and a palette for drawing additional objects etc.) and word banks (sub-divided into story starters, stirrers, events and endings). Children drag the required elements from the resource area to the picture and text areas on the right-hand side of the screen. Text is recorded underneath the picture, although balloons containing speech can be placed in the picture area. Children can create 1-6 screens of pictures plus text. The aim of the pictures is to stimulate children's imagination by encouraging them to mix fairy tale scenarios and characters with everyday ones: thus a princess can go to school or a dinner lady can visit a castle and meet a wizard etc. Ideas suggested by the word banks, for example 'as if by magic' and 'the wizard fell sound asleep' further promote this aspect. Speech synthesis is available because it helps young children use words they cannot yet read and they can hear a composition they would otherwise be unable to read for themselves.

Collaboration is facilitated in several ways. The children work around an octagonal table containing six Wacom tablets. As these are smaller than the computers usually found in primary school classrooms, they enable children to communicate verbally face-to-face across the table as well as side-by-side. Children are therefore encouraged to help each other - sharing both technical expertise and assistance with writing. In addition, the computers are networked so that children can share pictures and text with each other electronically. Finally, children can enlist the support of an agent called Louisa. She is depicted as a pupil, slightly older than the targeted age of pupils, who is working at a table, but looking round at the child, smiling. When fully developed, Louisa will show a friendly interest in what the child is doing and suggest a further step, based on knowledge about the child, the context and some simple rules. Louisa will reflect the child's attainment level and may retain knowledge from previous use. The purpose of Louisa is to provide positive support and build self esteem; therefore criticism, correction and critical analysis will be avoided.
Evaluation of the system suggested that the software used in the NIMIS environment was fun, stimulating and fostered collaboration. The children wrote humorous stories which included dialogue created in speech bubbles. The children enjoyed using the system and produced stories of higher quality. The stories contained better spelling, more scene changes, more sophisticated sentence construction and were more imaginative and easier to read. In addition, the children supported each other with ideas around the table and were able to write collaborative stories and exchange ideas electronically. Further benefits were that the children discussed, read, listened, and learned vocabulary and story building. The effect of the agent was not assessed at the time of writing, as it had not been fully implemented.

3.4.5 GhostWriter

Although not concerned with the whole process of narrative writing, GhostWriter (Robertson, 2000) is included in this review because the system applied an innovative approach (utilising recent advances in technology evident in computer games played at home) to the problem of helping pupils consider an essential aspect of story writing - characterisation. The purpose of the research was to investigate the social interactions children engaged in whilst taking part in a role-play exercise within a virtual environment, including the moral decisions they made, and to examine the effects of rehearsing conversation in a virtual role-play environment upon characterisation in children's imaginative writing.

GhostWriter was a preparation activity for story writing targeted at 10-12 year old children. Based on a commercial game, it featured a 3D computer graphics version of an old manor house, containing all the usual features expected of haunted houses -- cellars, attics, secret passageways and dog eared books etc. Users interacted within this world, by walking from room to room, and picking up ornaments or reading books. As they wandered about in the haunted house, they heard noises such as strange creakings, clocks ticking and perhaps eerie howls. Atmospheric music played in the background. Users also interacted with other users by typing messages to them. The users in the haunted house were represented by animated characters (avatars). Each avatar was controlled by a user, who could choose a facial expression for the avatar to depict their current mood. The 'game' was operated from three networked computers.

GhostWriter enabled pupils to take part in a role-play activity using onscreen characters, prior to writing a story. Two pupils and a role-play leader (the teacher/researcher) interacted with each other in a good-versus-evil adventure set in the virtual-reality castle. The pupils
took on the roles of a brother and sister who visited the castle and the role-play leader played the part of two characters who lived there. Participants moved their characters through a graphical world, improvising written dialogue as they went. The story's outcome was determined by the pupils who decided whether or not to eliminate the villain to prevent him/her taking control of the castle.

Analysis of the typed communication exchanged between the role-players during the game showed that GhostWriter encouraged pupils to form relationships with the other characters. They also made judgements about the characters' personalities and to a lesser extent expressed emotional involvement during the game. The system was found particularly beneficial for children with low literacy standards and motivation and children who usually showed little interest in school. The stories written after the virtual role-play exercise contained more dialogue and more indications of relationships between characters than stories written under normal classroom conditions. A recognised limitation of the system was the amount of time it demanded of the teacher - playing the 'game' required that the teacher worked with pairs of children for approximately half an hour per pair. Furthermore, the success of the system depended upon the skill of the teacher as role-play leader to encourage the children to contribute effective dialogue. These problems could be overcome by controlling the role-player leader's characters using AI techniques - an intended future development of the project.

3.5 Systems providing feedback

How alternative systems have incorporated feedback is reported in this section. The first example is a writing system which offers pupils support with writing followed by feedback via animated agents. No other writing systems supplying feedback could be found, therefore, in order to demonstrate other types of feedback, examples of computer programs designed to help children with different tasks are given. The examples given in this section explore the effects of using two different kinds of speech feedback on children's spelling and the effects of immediate versus delayed feedback on children's logo programming skills.

StoryStation (Robertson and Wiemer-Hastings, 2002) provided positive and negative feedback on children's story writing via animated agents. The effects of both the agents and of providing a combination of positive and negative feedback upon pupils' motivation and writing performance were explored.
StoryStation, a writing tool for 10-12 year olds, aimed to encourage pupils to review and revise their writing through the provision of two types of support: tools and feedback. The tools were: a dictionary, a thesaurus, word banks and a word count facility. These were intended to help children while they were planning or composing their stories. Two kinds of feedback were provided: negative feedback designed to highlight mistakes and positive feedback which highlighted 'good' aspects of writing. The negative feedback was limited to spelling mistakes and overuse of the basic connectives and, but and because. The positive feedback was restricted to characterisation. It included: 'good' vocabulary, dialogue, character descriptions and descriptions of character's feelings and personality. The feedback was colour coded, giving the text the appearance of having been highlighted with coloured felt pens. Spelling mistakes were coloured orange and basic connectives were coloured red. Positive feedback concerning characterisation was coloured grey, green, blue and pink. The feedback was generated by comparing skills evident in the story with skills demonstrated in previous stories. For first time users, skills were compared to the norms derived from stories previously written by other pupils of the same ability (levels A-E). Two versions of the system were created: an agent and a non-agent version. The agents, which were designed by children, included characters such as: 'Baby Alien Thesaurus', 'Whiskers Spelling' and 'Rabbit Word Banks'.

The effects of both aspects of the StoryStation system - the value of using animated agents, and the benefits of combining positive and negative feedback - have not yet been fully evaluated. The pilot study indicated that some pupils were confused by the inclusion of positive alongside negative feedback. In addition, the children quickly discovered that they only needed to respond to the aspects highlighted in red and orange (spelling mistakes and overuse of basic connectives), commenting 'you can just ignore the rest'. One child, far from feeling encouraged, as the system intended, was demoralised, making the poignant comment: 'I know I'm not that good at spelling, but I like to try to put in good words, but then my whole page gets coloured in yellow'. Robertson references two papers related to the incorporation of agents in system designs. Johnson et al., (2000) suggest that there are potential benefits of including animated pedagogical agents in the design of systems. However, Dehn and van Mulken's (2000) review suggests that the results of much of the current research concerning agents are inconclusive. The effects of the StoryStation agents were not published at the time of writing.

The Spello program (Wise and Olson, 1992) was designed to use interactive speech feedback and phonological skills. In two versions of the program, the synthesizer pronounced the word to be spelled and the student tried to type in the word correctly. Both
versions of the program showed the students which letters were correct in their spelling attempts. One version pronounced only the target word as often as the child requested. The other version also provided intermediated speech feedback for children's spelling attempts, so they could hear how their own attempts sounded and compare them to the target word.

Twenty-eight children aged seven to fourteen studied sixteen words they had misspelled on pre-tests and sixteen words of related word structure. For children ten years or older, training with intermediate speech feedback led to greater benefits in phonological coding skills than training with word-only feedback, reflected in the ability to read nonsense words related in structure to the trained words. Intermediate speech feedback also led to a marginally significant advantage in spelling the trained words. When the groups switched conditions however, there was no difference in their tested skills after a second week of training.

The findings of two other research projects concerned with investigating immediate versus delayed feedback are presented here although the feedback was not related to children's literacy skills. Johnson and Kane (1992) report the results from a study where immediate feedback was found to lead to better performance than delayed. Ninety children were taught simplified Logo programming commands, to help them solve computer mazes. Mazes were solved under conditions of either immediate feedback (each command entered had an immediate, visible effect on the movement of the turtle) or delayed feedback (the invisible turtle moved with each command, but showed its current position only after every six commands. All the children solved the final maze with no feedback (the turtle moved invisibly, but never showed its position). Older children performed better than younger children on all mazes and performance with immediate feedback was better than that with delayed. Cope and Simmons (1994) examined the effects of limiting the immediate feedback in a Logo micro world and found it had beneficial results. The children were observed solving problems that involved the reproduction of given rotations without the information provided by a rotating turtle. It was found that limiting the feedback in this way reduced the incidence of trial-and-error problem-solving strategies. There was also evidence that higher level problem-solving strategies, which took into account a wider range of problem features, were used to compensate for the restricted access to immediate feedback.

3.6 Contingent tutoring systems

Wood and Wood (www.psychology.Nottingham.ac.uk/staff/Heather.Wood/) explain the principles underpinning contingent tutoring in computer assisted problem solving. The goals are that the learner should not succeed too easily, nor fail too often. Contingent tutoring involves rules which have been derived from their studies of mothers and children. The rules
have been used within computer tutors such as DATA, which helps pupils solve mathematical problems. Contingency based instruction, like Bruner's 'scaffolding' and Vygotsky's 'zone of proximal development', discussed in Section 2.5.2 focuses on the idea that given sufficient help, children can and do learn while trying to solve problems initially too hard for them. A more knowledgeable person helps them to 'divide and conquer' until the original 'too hard' problem is transformed into one 'just manageable' for them. Support is given (the scaffolding 'goes up') when and where it is needed and, equally important, such scaffolding 'comes down' again as the learner gains mastery.

Contingent tutoring is the attempt to specify exactly how to strike a balance between

- ensuring that learners solve for themselves as many of the problems in a task as possible - to promote feelings of success, mastery and ownership - while
- intervening when the task is simply too hard for them - to avoid prolonged failure.

In their studies of assisted problem solving with young children they found that when mothers, teachers and experimenters did strike such a balance by immediately responding to how a learner was faring from moment to moment, learners would gradually take over responsibility for the task. Such a learner would then show greater task mastery at post-test than learners exposed to less flexible teaching regimes. For instance, some adults would employ a strategy composed solely of vague verbal hints, never 'interfering' directly. This may be sufficient (and 'contingent') if the task is relatively easy for the learner - i.e. if this is all s/he needs to be successful - but given repeated difficulty with a problem, and only verbal nagging given in the way of 'help', success can be a very long time coming and may involve much error and frustration along the way. At the other extreme are adults who decide to take over the task and simply demonstrate how to do it. If time is short, such a strategy gets the job done quickly and might motivate learners into action. However it gives no support for the problem the child is trying to solve right now. Even if the adult stays around to give demonstrations interactively (referred to as a 'swing' strategy, where the adult does a 'quick fix' and then withdraws again) the learner is still faced with all the work involved in deciding what to do next and how. Such a strategy is akin to having a textbook with the answers at the back - i.e. it contains information on what answer is "correct", but no help with the reasoning that leads up to it.

Contingent tutoring involves more levels of help than simply posing a problem and giving the answer. In addition to feedback ("That's right/wrong"), the learner can receive several levels of hint for the current problem:

1) The problem, and encouragement to solve it. Feedback comes here too.
2) Quick vague cue.
3) Less vague cue! If materials are involved, select appropriate ones.
4) Almost the answer. Or materials needing only a final push.
5) The answer. Or demonstration of solution.

Put simply, the basic principles of computer-based contingent tutoring are: when learners are in trouble give them more help than before, when they succeed, give them less help than before - "fading".

3.7 Automated assessment

Wresch's (1993) review of automated essay assessors indicates that research concerning automated assessment began over 30 years ago. The first computer graded essay assessor was based upon an analysis of syntactical features, the most statistically significant being: essay length in words, average sentence length, number of commas, number of prepositions, number of spelling errors, number of common words and average word length. These measures focused on detecting developed themes and mature vocabulary, with little interest in sentence complexity. Other researchers in the sixties and seventies refined the measures in an attempt to identify the essence of writing quality more closely. One study chose to identify levels of quality by comparing student word choice to word usage in published texts. Another developed a use for automated assessment - creating feedback by combining the statistical information with comments to students about their drafts, or highlighting weaknesses in students' writing to teachers. For example, detection of a high proportion of pronouns could result in a comment to the student such as: 'You have used the word 'they' eleven times. Is the reference always clear?' The comment to the teacher might be phrased: 'Extraordinarily high proportion of pronouns. Is the reference always clear?'

More recently, research has focused upon developing automated analyses of writing into proof reading programs for writers, such as spell and grammar checkers. 'Writer's helper' (detailed in section 3.2.6) and 'Writer's workbench' (detailed in section 3.2.7) have been developed to help university students and business people revise their texts. The programs perform word counts, measure sentence lengths, look for markers of coherence and infer style.

The Intelligent Essay Assessor

The Intelligent Essay Assessor (Foltz, Laham and Landauer, 1999), a commercially available system, uses a different method to assess writing quality - Latent Semantic Analysis, a machine-learning algorithm that accurately mimics human understanding of language. First,
the software is "fed" information about a topic in the form of 50,000 to 10 million words from on-line text books etc. It learns the text and then assigns a mathematical degree of similarity or "distance" between the meaning of each word and any other word. The program evaluates essays in two ways.

1. An expert grades enough essays to provide a good statistical sample, then the software grades the rest. The software computes the similarity of a student essay to the essays graded by the expert. The student then receives the same grade as the human-graded essays to which it most closely matched.

2. A second method compares student essays to an expert's essay, the "gold standard."

The Intelligent Essay Assessor is targeted at secondary aged and university students. The topics tested include: introductory psychology, biology and history. The researchers have found a strong correlation between students who write the most and students who write the best. However, although the amount of content is measured by the Essay Assessor, it is measured in concepts rather than words. The software does not grade grammar and style. As part of the assessment, students are informed about what is missing from their essays and where to find the information in the text book. The results from large scale trials indicate that the software's reliability at scoring is equivalent to that of human graders. The software performed almost as well as teachers at detecting which texts were the sources of students' knowledge. In addition, the tool is successful at helping students improve their essays. In response to the feedback they received, all the students' essays improved significantly with each revision.

Despite the euphoria of researchers concerning the practical value to teachers of automated assessment, Wresch (1993) has noted how schools have not, and are unlikely to, make use of automated assessment. The reason for this he suggests, is that the programs say more about the cognitive processes of the graders than the skills of the writers. The main benefit of these tools is not that they can grade students work, but that the tools can inform human raters of their tendencies and can provide additional information about student writing.

3.8 Conclusions
An enormous variety of approaches adopted by alternative computer tools have been demonstrated and discussed in this chapter. An awareness of the diversity, benefits and limitations of the approaches outlined above is useful when designing a new tool which aims to have a positive impact upon children's writing performance.
Most commercial software packages for children deal with a single aspect of the writing process, such as motivation, spelling or structure. Although visually exciting, with colourful graphics, animations and sound effects etc., or with the ability to talk to the user, educational software is usually fairly limited in the assistance that is offered to children learning to write. Moreover, commercial software tends to focus upon the product rather than the process. Web sites are even more limited in what they offer - they either provide information presented in a static format or simply provide places for stories to be published.

Early writing systems such as TOPOI focused on surface level concerns, worked on a linear model of writing and focused on small chunks of writing behaviour based on a stimulus response model of learning rather than the whole writing. By following a linear model, most of the early applications separated writing behaviour from the writer's cognitive activities. CATCH went some way towards shifting children towards the knowledge transforming approach, but the system with its emphasis on a combination of the processes of revision and editing offered little support for composition such as demonstrating specific literary techniques, assistance with planning or brainstorming ideas. Furthermore, the linguistic features selected for editing were insufficient to result in improved writing. The Writing Partner, although successful with its targeted age range of adolescent writers, did not offer the kind of support pertinent to younger children. An approach requiring the user to first plan, then write a story is unlikely to be effective with younger children, as they are constrained by the 'what next?' strategy, unable to visualise beyond the present sentence. Moreover, the system relied on the writer already possessing knowledge of narrative techniques and how to make improvements, and the ability to successfully detect and correct grammar errors. Again, the approach adopted by T'rrific Tales, whereby children were encouraged to collaborate when building pictures and text to create stories, was appropriate for the targeted age range -children who are in the very early stages of learning to write. However older children, who possess more advanced writing skills, will require different support.

GhostWriter indicated how presenting a virtual environment, an approach usually associated with commercial 'games' played on home computers, successfully motivated pupils when adopted in the classroom and helped them empathise with the characters, but it did not aim to demonstrate or guide children through the writing process or teach writing techniques. The effects of StoryStation upon improving children's writing performance have not yet been evaluated. The pilot study suggests that providing both positive and negative feedback may be confusing and unintentionally demoralising to some pupils. However, the project indicates there may be potential benefits of including animated agents to improve pupils' interaction with a writing system, once a successful framework has been established.
Analysis of the design of the applications discussed in this chapter indicates that alternative web-sites, commercial software and academic systems have not attempted to combine a cognitive tool with a tutoring system in the way proposed for the new writing system. In addition, automated assessment software specifically geared at primary aged pupils has not been attempted. The research concerning models of writing behaviour, children's writing development and effective teaching methods (discussed in Chapter 2) suggests that the best approach for a writing tool which aims to assist children improve their narrative writing, is to engage children in higher thinking skills whilst simultaneously teaching them effective literary techniques. Chapter 4 outlines the design of HARRY, a system which is both a cognitive tool designed to act as a bridge between children's usual 'what next?' approach and the reflective writing process of mature writers, and a tutor designed to impart expert knowledge concerning how to write an effective story. Chapter 5 outlines how CHECK TEXT, a tool which automates the assessment of primary aged pupil's written grammar and style was developed, based upon research concerning children's writing development identified in Chapter 2, and on quantitative analyses performed upon stories representative of the ability range associated with Key Stage 2.
Chapter 4
HARRY - SYSTEM DESIGN

'... the software is well thought out, drawing from both writing theory and practical classroom issues.'

'I liked the way that the interface captures the elements of an approach to writing where this combines our understanding both of the way that novices learn to write and the way experts write.'

Reviewers, International Journal of Human-Computer Studies (paper accepted, 2.4.03)

4.1 Introduction

The purpose of the HARRY writing system is to shift children away from their usual rambling, 'what next?' approach towards adopting the mature writing process which involves reflection, whilst explaining literary techniques specific to the genre of narrative writing. HARRY is designed to provide a skeleton framework of suggestions, a scaffolding (see Sections 2.5.1 and 2.5.3), which results in a process of negotiation of text, sentence and word level decisions with a child. The system holds and displays an individualised tutor led conversation about story writing. HARRY provides written guidance concerning the structure of a story, helps children to revise as they compose and assists children as they proof read their texts. The intention is that the tool fosters and channels originality, spontaneity, creativity and personal growth – children discovering their own means of self expression, exploring their own feelings and experiences and using them effectively, whilst providing a framework on which to base their thinking. The tool aims to simultaneously offer an alternative perspective to consider which challenges the writer's thinking, whilst helping to reduce short-term memory overload, in order to give children time to reflect. This necessitated breaking the writing process down into separate, yet easily combined elements, in order to help relieve the mental choreography of having to juggle decisions about what to write with how to express the thoughts in words and sentences and how to spell the individual words etc. Material drawn from Sections 4.2 - 4.7 has been presented in two papers accepted for publication by refereed journals (see Appendix C) - The International Journal of Human-Computer Studies (Holdich and Chung, 2003) and Computers and Education (Holdich, Chung and Holdich, 2004).

4.2 Model

A model is presented (Figure 4.1) to demonstrate how HARRY scaffolds the reflective writing process employed by mature writers in an appropriate way for young children. Key elements of the composing process (brainstorming, planning, composing, transcribing, reviewing and
revising) are identified separately, made more effective by explicit teaching, yet are allowed to function together. However, whilst mature writers sometimes also edit their texts during composition, HARRY separates the editing task from composition. Research identified in Section 2.7.3, such as Smith (1982) and Cordeiro et al., (1983), suggests that this deviation from the model of mature writers is more appropriate for children. Editing is therefore delayed until the completion of the story. Research outlined in Section 3.5 suggested that delaying feedback can be beneficial to children. HARRY solves the problem children have in paying attention to several tasks simultaneously, by taking over the task of remembering, then presenting, different aspects of the process, by suggesting alternative plot ideas, sentence constructions and sophisticated vocabulary, when requested. HARRY makes the different elements involved in writing explicit, by displaying the suggestions separately in different boxes. The suggestions can be accessed in any order, and revisited any number of times. In addition, movements backwards and forwards between different sections of the story are facilitated. In this way, the model of the writing process that underpins HARRY at the composing stage is similar to the model adopted by mature writers - composition combined with continual revision. However, whilst mature writers constantly and randomly alternate between all the elements of the composing process - planning, brainstorming, reviewing, composing, transcribing, revising and editing - the process of editing (improving grammar and correcting spelling) is facilitated separately.

Children's writing is likely to contain many style, punctuation and spelling errors. Suggestions for how to children can improve upon grammar, style and spelling weaknesses detected in their writing are provided after the draft has been completed. HARRY separates the editing task into two tasks. First HARRY provides feedback concerning grammar and style weaknesses. Then spelling errors are corrected by the child once the text has been transferred into a Word processing package. It was felt that children would feel disheartened if presented with all their errors at once, so suggestions for improving upon grammar and style weaknesses are provided separately for each of the sections completed during the first stage. HARRY's assistance thus helps children improve their narrative writing prior to using a conventional word processing tool. HARRY assists children throughout the writing process: from the generation and capture of ideas to the production of a complete, polished story, ready for publication. HARRY achieves this by providing written interactions (prompts) with children before, during and after they write, encouraging them to remember to include relevant material, review and revise word choice and sentence construction, organise and redraft their story. The prompts are therefore concerned with the two main kinds of knowledge identified by Bereiter and Scardamalia: content knowledge and discourse knowledge as initial ideas are recorded and amended as the main text is developed.
Figure 4.1 The model underpinning HARRY - idiosyncratic (Graves, 1983, p.270) composition, followed by editing

4.2.1 Definitions of Key terms featured in the model

Different researchers ascribe different meanings to the terminology associated with writing: brainstorming, transcribing, composing, drafting, reviewing, revising and editing etc. Notably, the terms revising and editing are often used synonymously in the literature, yet they are distinctly different processes. In order to avoid confusion, definitions of the terms which feature in this model are presented here.

**Brainstorming**

Brainstorming is the process of summoning up ideas, words and phrases etc. to be included into a story. This process can occur at any point during the composing process.

**Planning**

Ideas, words and phrases are ordered to ensure an organised text. The plan may be recorded in note form or held in the short-term and long-term memory. Planning is a continual process - the organisation of ideas, words and phrases is continuously evaluated, refined and developed as a text progresses.

**Transcribing**

Transcription is the process whereby the message that has been formulated or composed is held in the short-term memory then translated into written form using the conventions of
spelling, punctuation and textual layout. For mature writers this process is an automated sub-skill, performed without reflection. For beginner writers the process usually requires more explicit attention as they may struggle to find letters on a keyboard or consider spelling and punctuation.

Composing and drafting
Composing refers to everything a writer does from the first words put on paper until the final draft is completed. It includes the all important brainstorming of ideas which goes on inside the heads of writers before and during the time when they are actually writing. Many drafts, although not necessarily new physical copies of a text, may be made during the composing process, as vocabulary is reviewed, sentences are reworked, new ideas are included, or plans are altered etc.

Revising
Composing should not be viewed as the first part in a sequence of composing, transcribing, reviewing and revising, as these activities are interrelated and interdependent, with writers moving constantly backwards and forwards between them. Three different kinds of revision are made by writers: reviewing, revising and editing.

Reviewing is applied to the constant process of reflecting, checking and improving while the writer is writing, or in the short pauses between bursts of writing. The writer checks, for example, the suitability and choice of the vocabulary used, perhaps rephrasing a sentence, or decides to include extra information.

Revising is often defined as the last stage in the writing process. This definition assumes that the writing process is linear - first pre-write, then write, then revise. However, if the Flower and Hayes (1981) model of the writing process for mature writers is followed, it is clear that revision is an activity which is performed at any point in the writing process, including the phase before transcription, when ideas are being formed in the head and affects any segment of text (a word, phrase, sentence, paragraph etc.) The writer looks back at what has been written and makes changes to improve the clarity of the message. It is distinguished from text generation by the fact that it involves some fairly explicit processes of comparison, generally between some segment of a text and some representation of a writer's knowledge or intention, which results in global changes to the content. Spelling, punctuation and grammar errors are also sometimes noticed and corrected at this stage. Revision can occur before transcription - ideas, words, sentence constructions etc. can be re-evaluated and refined before they are recorded.
Editing is performed on completed drafts and marks the final stage of the writing process. It involves the careful rereading of a text, checking for grammar errors, including sentence construction, choice of vocabulary and punctuation, possibly reshaping the content prior to publication or completion. The process can be either initiated by the writer's personal desire to improve a text or performed as a consequence of receiving feedback from another person.

The whole writing process
Writing is a complex task. Information has to be brought together from a range of sources whilst composing. Ideas have to be searched for inside the head and produced on cue. Words have to be selected from long term memory, spelled according to convention and ordered grammatically into acceptable sequences. The emerging text has to be reread as a whole to check whether it satisfies certain genre constraints and the needs of the audience. Listing the elements involved in the process of writing implies that the process is linear. Mature writers however, do not work through the processes identified above in a sequential order; first brainstorm, plan, compose, transcribe, then review and revise. There is a complex and idiosyncratic interplay between the many components involved - from a concern with what word to write next, to the shape of the whole piece.

Graves (1983, p.270) describes writing as a 'highly idiosyncratic' process - meaning peculiar to the individual. The term 'idiosyncratic' is used to describe the first stage of HARRY's writing tutorial - the stage when composing is combined with brainstorming, transcribing, planning, reviewing and revising in order to simulate the random, unpredictable nature of thought processes that take place inside the heads of expert writers. For mature writers much of this process is unconscious - they intuitively know how to write without necessarily knowing how they do it. Children however, are not usually consciously aware of the different 'voices' (Flower, 1994) or 'constraints' (Sharples, 1999) that push mature writers in different directions (discussed in Section 2.3.1). Learner writers need to develop the meta-cognitive skills to switch their attention between the different constraints or voices at appropriate times in the composition process. The task for primary school teachers in general, and the new computer system in particular, is to bring the various elements of the writing process to the attention of children and help children combine them, thus producing an effective piece of writing. Like a human teacher, HARRY achieves this by using 'dialogue' to scaffold the reflective, knowledge transforming process characteristic of mature writers. HARRY delivers conversational prompts imparting expert-like knowledge specific to the genre of narrative writing in a conference-like situation when requested by children, before, during and after composition, combining the sub-processes of brainstorming, planning, composing and revising with transcribing. However, HARRY deviates from the mature model for although
mature writers combine the revision process with editing for grammar and stylistic weakness, HARRY provides separate editing guidance, divided into two tasks, once the draft is completed, as this is believed to be a more appropriate approach for children of primary school age.

4.3 System overview

The aim is to display a conference-like situation, where in the absence of a human tutor who would interact with a child and make suggestions for how to write a successful story, children can interact with pre-programmed written guidance from a computer tutor before, during and after writing. HARRY organises each story writing exercise into three stages. During stage one, HARRY provides assistance with composition combined with ongoing revision. Then, during stage two, HARRY provides editing suggestions concerning grammar and style weaknesses detected in the text. Finally, spelling and technical errors are corrected by the child during stage three, using the spell-checker available with Microsoft Word.

The composition of the story (stage one) is divided into several sections, and is based on the writing frames approach for structuring children's stories, suggested by Wray and Lewis (1995), outlined in Section 2.6.5. Each section is displayed on a separate screen. The child writes a section of the story at a time in response to HARRY's written suggestions - an approach similar to the 'what next?' strategy usually employed by children. Two 'boxes' are displayed on the screen: one containing a guiding prompt from HARRY, the other empty, waiting for a written response from the child. Whilst writing the response, the child is expected to use the mature approach involving reflection, by brainstorming, reviewing and revising plot ideas, vocabulary choice and sentence constructions in response to suggestions presented in pop-up boxes. The pop-up boxes are presented one at a time when requested, but can be revisited any number of times and in any order. A fourth check box can also be requested. The prompts contained in the check box remind the child of the focus of the section. The guiding prompt is on permanent display for the duration of the time spent on the section.

When the child has 'finished' a section, s/he moves to the next by clicking on the 'what next?' button. Each time the 'what next?' button is clicked on, a new screen appears with a new guiding prompt from HARRY explaining the next section of the story and a reply box for the child to record a response. Movements backwards and forwards between the sections are facilitated. The child can revisit earlier sections by clicking on the red back arrow at the bottom of each screen until the desired screen is in view, and return to the current screen by clicking on red forward arrows, but it is necessary to click on the 'what next?' button to move
onto a new section. Clicking on the 'what next?' button saves the writing in the current section before presenting the new section to be worked on. The screen designs for stage one, demonstrating the 'what next?' and 'that's it for now' buttons, and the forwards and back arrows, are presented in Figures 4.2a and 4.2b.

Figure 4.2(a) Screen design, Stage 1, (composing/revising) with 'useful words' open

Figure 4.2(b) Screen design, Stage 1, (composing/revising) with 'sentence help' open
After the last composing section has been completed, clicking on the 'what next?' button, takes the child into the second stage (editing). The background screen colour changes from blue to green to highlight the transition. The first section of text recorded during the composition stage is presented again. The original *guiding prompt* and the child's response is displayed for each section in turn. Suggestions for editing are listed in a third box in the same position as the help boxes for the composing screen, although the editing suggestions occur as a list in a single box, rather than separate boxes. The child proof reads the section of text in response to HARRY's editing suggestions, then clicks on the 'what next?' button to proof read the next section. (Moving backwards to a previous section that has already been edited is not facilitated). The screen design for the editing stage is presented in Figure 4.3.

![Figure 4.3 Screen design, stage two (editing)](image)

When proof reading has been completed for the last section, the child clicks once more on the 'what next?' button. The whole story (without the prompts) then appears as a Microsoft Word document. Each section is presented as a separate paragraph. The child is expected to make use of the facilities available with Microsoft Word to correct spelling and technical errors and save the story before printing out.

Children are thus systematically *guided* through a composing process which is similar to that employed by mature writers, yet also develop their narrative using the 'what next?' approach. Written interactions (prompts) presented before, during and after they write, encourage them
to continually revise their writing. The prompts share knowledge concerning literary techniques and foster cognitive conflict by challenging children to consider alternative ideas and rethink sentence constructions and vocabulary, in order to convey their intended message more accurately. HARRY's scaffolding of the mature writing process changes the way children approach the task of writing. Children are guided through the labyrinth of thought processes, juggling the many decisions necessary when writing a story - from what word to use next and how to phrase the next sentence, to developing the overall plot. However, children are also able to develop their narratives using their more familiar 'what next?' approach.

### 4.4 Stage one: composing/revising

Four story themes were considered adequate for the purposes of conducting a formative study in a primary school. The themes are: **space, pirates, a woodland adventure** and **an enchanted journey**. Several hundred conversational style prompts sub-divided into: guiding prompt, ideas help, sentence help, word help and check are stored in Microsoft Access databases. The prompts are grouped into the following sections: welcome, start, setting, character, action, complication, key and last. The prompts aim to encourage children to include many of the specific narrative writing techniques identified in Sections 2.6 and 2.7 when writing stories about the pre-specified story themes. (Prompts for one of the story themes are presented in Appendix A to demonstrate the quantity and variety). The choice page for the four story themes is presented in Figure 4.4.

![Click on the theme you want to write a story about.](image)

*Figure 4.4 Screen design, story theme choice page*
4.4.1 The strategy

The strategy table enables the required sections (welcome, start, setting, character, action, complication, key and last) to be listed in a predetermined order, ensuring that all the elements essential for a story are included. These sections reflect the terminology of the National Curriculum, linguists and narratologists concerning the structural categories of stories (discussed in Section 2.6.1). As a child proceeds from one section to another, a guiding prompt (supported by associated ideas help, sentence help, word help and a check reminder of the focus of the section) is randomly selected from within each section listed in the strategy. Key Questions, based on key words are targeted for when they are most likely to be required. So for example, if there are suggestions in the action prompt to write about finding an alien, then an action prompt could be immediately followed by a key question requiring more information about the alien. Some Key questions ask for more descriptive phrases concerning the setting or a character, others suggest including complicating actions. Prompts are programmed not to be repeated within one story. It is possible to vary the frameworks for different story themes because the strategy is flexible. The strategy for each of the four story themes is presented in Table 4.1.

<table>
<thead>
<tr>
<th>Journey</th>
<th>Wood</th>
<th>Pirate</th>
<th>Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start</td>
<td>Start</td>
<td>Start</td>
<td>Start</td>
</tr>
<tr>
<td>Character</td>
<td>Character</td>
<td>Action</td>
<td>Setting</td>
</tr>
<tr>
<td>Setting</td>
<td>Setting</td>
<td>Key</td>
<td>Key</td>
</tr>
<tr>
<td>Action</td>
<td>Action</td>
<td>Action</td>
<td>Character</td>
</tr>
<tr>
<td>Key</td>
<td>Key</td>
<td>Key</td>
<td>Action</td>
</tr>
<tr>
<td>Complication</td>
<td>Complication</td>
<td>Last</td>
<td>Key</td>
</tr>
<tr>
<td>Action</td>
<td>Last</td>
<td>Complication</td>
<td>Last</td>
</tr>
<tr>
<td>Key</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Last</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: If no key words are used in the preceding block of text, the next stage in the strategy will be delivered.

As can be seen from the table, HARRY can vary the number of sections in a story and demonstrate different story structures. It would be possible to experiment with the story order (the plan), comparing for instance, the effects of writing a space story where a complication occurs shortly after the story has started, to a story where a complication occurs immediately before the end. The ability to vary the order ensures a logical progression is achieved for each story, based on knowledge of the content of the prompts. The benefit of programming randomly selected prompts from within each section is that different suggestions will be
presented to each child, as they would be with a human tutor. Ordering the sections within the strategy table ensures the resultant story is logically structured into paragraphs, each containing a theme and that all elements of a story (an opening, setting and character descriptions, a series of events including a complication, a resolution and ending) are included, as the inability to plan effectively underlies the problems children experience when writing stories. The intention of the strategy is to enable HARRY to guide a child when writing a story, yet also follow the lead of the child. The system can follow the 'what next?' strategy used by children when writing, yet 'negotiate' with children some of the ways mature writers operate. Each of the sections provides a vehicle for specific teaching points.

4.4.2 The prompts

Guiding, ideas help and check prompts

The guiding prompts convey the purpose of each paragraph in a general way. The ideas help offers more specific suggestions for what to write. The check prompt reminds the child of the purpose of the paragraph. For example, the purpose of the start guiding prompt is to write an effective opening designed to grab the reader’s attention, using one of three accepted literary devices: dialogue, action or description. The guiding prompt might suggest that the child begins the story with dialogue. The linked ideas help might then suggest an activity for the characters to talk about. The check prompt might remind the child to show what is happening at the start of the story through what the characters talk about. Thus, a lively start to the story is likely to be created, if the child follows the advice. The purpose of all the sections in the strategy table is presented in Table 4.2. Examples of guiding, ideas help and check prompts designed to convey the purpose of each section are also demonstrated.

Key prompts

Key word prompts are based upon words used by a child in a text. These encourage children to expand upon ideas they have already chosen to write about, for example: 'Tell me more about the rocket'. A synonym table containing key words of similar meaning and variation on spellings, such as spacecraft, spaceship, rocket and roket, increases the chance of a writer writing a particular word that supports a key word prompt. The key word prompts, by following the lead of the child, prevent the system from becoming merely an electronic worksheet with a completely predetermined framework, though with randomly selected prompts. The key words (such as rocket, magician, dragon, alien, wolves, town, mountain etc.) are suggested within other prompts to increase the chance of key words appearing in a text, although it is anticipated that children will incorporate key words without following the specific suggestions. Key word prompts are targeted in the strategy to occur after the prompt category suggesting the key word.
<table>
<thead>
<tr>
<th>Type</th>
<th>Purpose</th>
<th>Example guiding prompt</th>
<th>Ideas help</th>
<th>Check</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welcome</td>
<td>Introduce the story theme and initiate thinking about the topic. It is anticipated that the page will be used to store the child's evolving plans for the story.</td>
<td>I'm sure you will enjoy writing a pirate story. Make a list of some words for this story in the box below.</td>
<td>Pirate stories are usually funny because the pirates do silly things. What silly things could they do?</td>
<td>Come back to this or any other page to find ideas for what to write.</td>
</tr>
<tr>
<td>Start</td>
<td>To suggest one of three main ways of opening a story (action, dialogue, description), thereby creating an interesting start to the story.</td>
<td>Try starting your story with one of the pirates talking.</td>
<td>Think about what the pirates are doing...perhaps they are in the pub, looking at a map discussing their next raid or on board ship.</td>
<td>Do you like your opening sentence? Have you made the start of your story interesting enough?</td>
</tr>
<tr>
<td>Setting</td>
<td>To evoke the atmosphere and create the background to a story by providing detailed description of the setting.</td>
<td>Describe what it is like in space. Make me feel like I am really there. Think about what you can see in space or looking out into the distance.</td>
<td>Use similes or metaphors for a really powerful description. Finish this one or make up your own - Planets hang motionless on invisible threads looking like...</td>
<td>Could you add anything to your description? How about a simile or a metaphor. You could start one like this: Stars glistened like...</td>
</tr>
<tr>
<td>Character</td>
<td>To consider the personality of the main characters and how it is shown in their speech and actions etc.</td>
<td>Think about what the children in your story are like. Try to show this in the things that they do and say. Are they playing in their bedrooms or exploring the wood?</td>
<td>One could be a dare devil who dares others to do things? Another could be competitive always wanting to do everything first? Does the youngest always want to tag along even when not wanted by the others?</td>
<td>Make sure your characters act like this in the other parts of your story. You may want to come back to this page for ideas later in your story.</td>
</tr>
<tr>
<td>Action</td>
<td>To supply details of the main events.</td>
<td>The pirates could do a spot of fishing and find something else instead!</td>
<td>Perhaps they catch a mermaid, or a shark or an old boot!</td>
<td>What the pirates said when they caught something unusual is important. Make them sound surprised. What will they do with their catch?</td>
</tr>
<tr>
<td>Complication</td>
<td>To provide an unexpected turn in events.</td>
<td>The weather could change. This could cause problems.</td>
<td>There could be a torrential downpour. There could be a storm with thunder and</td>
<td>Have you made a feeling of drama here? Is it exciting enough? Have you used at</td>
</tr>
<tr>
<td>Key (e.g. unicorn)</td>
<td>Allow for tangential ideas to be pursued in more detail. Suggestions can include adding more descriptive detail or a complicating action.</td>
<td>Tell me more about the unicorn and how she was discovered.</td>
<td>What do the children think and do when they see the unicorn? What does the unicorn do? Is she frightened? Does she run away? Is she the last unicorn? Does she have a story to tell?</td>
<td>Have you made it clear what the unicorn is like? Have you used a simile or metaphor to describe her? Have you used at least 5 describing words?</td>
</tr>
<tr>
<td>-------------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Last</td>
<td>State what happens as a result of the events. Includes a comment or reflection on what has happened as a final sentence or an indication of the last actions of the characters etc.</td>
<td>You’d better start bringing your story to an end. You may need to sort a few things out first.</td>
<td>You could end with the pirates talking to each other about what has happened and what they thought of the adventure they had. Which pirate will have the last word?</td>
<td>Your last story is really important. Make sure you write a good one. (Don’t write THE END!) Look back to the beginning of your story. Does your end fit well with the start of your story or should you make some changes?</td>
</tr>
</tbody>
</table>
Sentence help prompts

Sentence help suggestions are based on the research literature presented in Section 2.7.1 concerning ways of promoting mature sentence constructions. The prompts encourage children to vary the sentence constructions they use when writing a story by suggesting the following techniques:

• dialogue;
• a question or several questions;
• one or two word (minor sentences) and short punchy sentences;
• longer descriptive sentences which include extra details of how, where, when and why, within the sentences (i.e. creating noun, verb, adverbial and preposition phrases);
• a variety of connectives and prepositions as links between clauses, in order to create varied complex sentences;
• interesting sentence starters for example: At that moment, A thought flashed in his head, Next minute, The next thing that happened etc., to vary the way sentences are started;
• starting a sentence with an adverb for example: Unfortunately, Fortunately, Luckily, Sadly, Next, Later etc., to vary the way sentences are started;
• starting a sentence with a non-finite verb (verb stem +'ing') for example: Turning the corner, Going closer, Not knowing what it was, Looking up etc., in order to encourage children to vary word order within sentences whilst simultaneously creating complex sentences; and
• starting a sentence with a wh-word (when, where, whilst, whether, whenever etc.) or use the wh-words as connectives within sentences in order to encourage children to vary word order and create complex sentences.

A variety of features were systematically covered when populating each story database with sentence help prompts. The sentence help is divided into three types: using dialogue, varying sentence construction and varying sentence type. For example a sentence help prompt might suggest that: 'You can use dialogue to show what is happening in your story like this: "What are you doing here? Why do you want to come back to Earth with us?" Alternatively, the writer could be encouraged to start a sentence in different ways, such as with a verb or to use a variety of connectives, choosing from examples provided, thus aiming to encourage children towards writing complex sentences and to interweave dialogue with descriptions etc. Lists were compiled of relevant examples of sentence starters, connectives and prepositions etc. to ensure that appropriate examples were offered and that repetition was avoided. Table 4.3 summarises the purpose and variety of the sentence help prompts and provides examples of prompts taken from the story databases.
Word help prompts

Word help suggestions aim to extend pupils' vocabulary resources by suggesting:

- alternative synonyms so that children use words which express their ideas precisely;
- alternative adjectives and adjectival phrases to assist children in the creation of effective descriptions;
- alternative connectives to encourage children to experiment with a variety of connectives, rather than the typical limited range comprising and, then, but, so, because etc;
- using dialect when recording dialogue, to convey character's personalities accurately; and
- alternative adverbs and prepositions so that sentences are sometimes expanded to include the details of 'how' and 'where'.

As with the sentence help prompts, when populating each story database with word help prompts, the aim was to ensure a variety of topics were systematically covered. Lists of example synonyms, adjectives, adverbs, connectives, prepositions etc. were compiled to ensure repetition was avoided. As the purpose of the Word help prompts is to improve and extend a child's vocabulary choice, a list of alternative words pertinent to the theme of each paragraph is usually provided. For example, word help for a paragraph where the guiding prompt requests a description of stars in space includes the words: blazing, burned, brightly, dazzling, flashing, flickered, glinted, glistening, sparkling, twinkling. Word help for a section where the writer is requested to include dialogue, might contain synonyms for the word said, such as 'whispered, shouted, called, muttered'. Table 4.4 summarises the purpose and variety of the word help prompts and provides examples of prompts taken from the story databases.
<table>
<thead>
<tr>
<th>Purpose</th>
<th>Variety</th>
<th>Example prompt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using Dialogue</td>
<td>To demonstrate an action • You can show what is happening in your story using dialogue. For example: &quot;Race you to that bush and back!&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>To provide information about a character • You can show what someone is like using dialogue. Like this: &quot;I can't play, I need to paint my nails. I want them to match my top!&quot;</td>
<td></td>
</tr>
<tr>
<td>Varying Sentence Construction</td>
<td>Starting with a verb stem + ing • How about starting your next sentence with a verb ending with ing like this: Looking up, ... Rushing forwards, ...</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Starting with an adverb • How about starting your next sentence with an adverb like: Luckily, Quickly, Wearily, Bravely, Carefully ...</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Starting with a preposition • Start some sentences with a word to describe where the fairies can be found like: Near, Behind, Across, Amid, Beside, Beyond, In between.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Starting with a connective • Try using one of these connectives to start your sentences: Furthermore, However, Also, Whilst, Although, If.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Starting with a given sentence starter • How about starting your next sentence with the words: Beyond the tall pine tree ... or Just at that moment ... or Not knowing what it was ...</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Using a simile or metaphor • Describe the owner's face and the way the owner moves. Use a simile like this: He moved slowly like ... Her face, though tired and old, had blue eyes as bright as ...</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Using a borrowed phrase • Think of phrases that are usually written in pirate stories like: &quot;Yo-ho-ho and a bottle of rum&quot; or &quot;15 men on a dead man's chest.&quot; There's often a parrot which says &quot;Pieces of eight&quot;.</td>
<td></td>
</tr>
<tr>
<td>Varying Sentence Type</td>
<td>Asking questions • Try asking questions to build up a sense of mystery about the house. Like this: &quot;What was that sound? Shhh, there it is again! Did you hear it?&quot;</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Writing minor sentences • Try writing a really short sentence for effect like: Bang! Crash!</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Writing short sentences • For a greater impact, build up to seeing the stone using 2 short sentences followed by a longer one. Like this: At last! There it was! ... The stone was lying on ... in the middle of ... next to ...</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Expanding a sentence • Expand a short sentence like 'They walked down the path' into a more detailed sentence like this: They strode along the winding path, their cloaks leaving a trail of sandy ripples behind them.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Writing complex sentences • Link descriptions together with words like: before, when, while, whilst, after, since. Like this: The crazy explorer jumped from one foot to another whilst ...</td>
<td></td>
</tr>
</tbody>
</table>
### Table 4.4 The purpose and variety of the word help prompts with examples of prompts taken from the story databases

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Variety</th>
<th>Example prompt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expressing shades of meaning</td>
<td>• Sophisticated alternative synonyms for commonly used topic words e.g. space, wood, pirates</td>
<td>Write down any words you could use to describe outer space like: the mysterious darkness, the unknown galaxy, the endless night sky...</td>
</tr>
<tr>
<td></td>
<td>• Appropriate alternatives for high frequency words</td>
<td>Think of different words to use instead of said like: joked, laughed, interrupted, teased...</td>
</tr>
<tr>
<td></td>
<td>• Alternative synonyms for key words suggested by guiding prompts and ideas help</td>
<td>A mission which is dangerous, is risky, hazardous, treacherous, unsafe, perilous</td>
</tr>
<tr>
<td></td>
<td>• Technical vocabulary</td>
<td>Do you need to know the names to describe the various gadgets on board? Control panels, monitors, digital read out, radar screens, dials, instruments, space telescope.</td>
</tr>
<tr>
<td></td>
<td>• Adverbs</td>
<td>Use adverbs to show how something is done - perhaps quickly, excitedly, energetically or slowly, carefully and calmly.</td>
</tr>
<tr>
<td>Adjectives</td>
<td>• Creating descriptive phrases</td>
<td>Write about the blinding lights, the twinkling stars, the coloured lights that blaze, dazzle, glisten and sparkle in the night sky.</td>
</tr>
<tr>
<td></td>
<td>• Alliteration</td>
<td>Group words which start with the same letter together to describe the dinosaur like: roaring, ranting and raving...</td>
</tr>
<tr>
<td></td>
<td>• Assonance</td>
<td>Group rhyming words together to describe the pirates like this: The scary, hairy pirates... The rough, tough ragamuffins. Think what rhymes with lazy or greedy!</td>
</tr>
<tr>
<td></td>
<td>• onomatopoeia</td>
<td>Use words which make the sound of the waves or the boat on the sea like: crashing, rushing, swishing, tinkling, jangling, creaking.</td>
</tr>
<tr>
<td>Altering Sentence Constructions</td>
<td>• Connectives</td>
<td>Try using one of these connectives in your next sentence: otherwise, although, since, especially, if, when, as</td>
</tr>
<tr>
<td></td>
<td>• Prepositions</td>
<td>Try using one of these prepositions in your next sentence: below, beneath, all around, nearby, next to, further away, opposite.</td>
</tr>
<tr>
<td>Improving Dialogue</td>
<td>• Invented words</td>
<td>The alien probably talks a different language! You could make some words up.</td>
</tr>
<tr>
<td></td>
<td>• Dialect</td>
<td>Remember pirates don't talk properly, they talk in slang like this: &quot;Oh, ho, me 'earties... Oh, bring that there map over 'ere will yer?&quot;</td>
</tr>
<tr>
<td></td>
<td>• Interjections</td>
<td>People often start talking with an interjection like: Mind you, Yes, No, Oh, Of course.</td>
</tr>
</tbody>
</table>
Combining the prompts at stage one

Thus, considerable and systematic planning underlies the apparently idiosyncratic diverse range of thoughts delivered by HARRY. Having an overall plan for the content of the prompts helped ensure that a varied selection of features would be delivered and that many aspects of successful writing were adequately represented in each story. The prompts apply many of the features and teaching techniques identified in Chapter 2. In addition, they enable HARRY to scaffold the revision process - the composing questions are simultaneously revising questions. Therefore, the child is guided through the process of including details fundamental to writing an effective story, such as the convincing portrayal of characters. The guiding prompt for example, can ask the child to write about the actions of a character. The ideas prompt can suggest ways of showing the character’s personality - whether the character is competitive or lazy etc. The sentence help can demonstrate recording dialogue which subtly reveals the personality of the character, such as "I'm the fastest. No one else comes close!" Word help can list synonyms for 'said' such as 'boasted, shouted and laughed' and suggest adverbs to indicate how the character spoke, such as 'quickly or loudly'. The check question can remind the child of the purpose of the section of writing, by asking: 'Is the personality of your characters clear do you think?' or 'Have you remembered to include dialogue in this section?' Table 4.5 presents examples of the range of prompts delivered during the process of writing a space story.

It was felt that the system thus far, with its combination of composing and revising prompts, adequately dealt with the promotion of the purpose and organisation element inherent in the National Curriculum level descriptions (Table 4.6) and contributed towards improving the written style. However, the system required further development if it was to promote more fully the grammar element of the National Curriculum level descriptions.
Table 4.5 Examples of the range of prompts delivered during the process of writing a space story.
(N.B. As the prompts are delivered randomly, each writer will receive a different set of prompts).

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Guiding prompt</th>
<th>Ideas help</th>
<th>Word help</th>
<th>Sentence help</th>
<th>check</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welcome</td>
<td>Let's write a space adventure story. Make a list of words that you could use in this story.</td>
<td>Think about 2 or 3 characters you could have. Think of good names for them. What might happen to them and where will the action mostly take place? Who will be the main character?</td>
<td>Write down any words you can think of to describe outer space - words to describe the blackness, the planets and the stars.</td>
<td>Write down any good sentences you can remember from stories you have read, which you could use like: He would not have believed it if he hadn't seen it with his own eyes.</td>
<td>Come back to this or any other page to find ideas for what to write.</td>
</tr>
<tr>
<td>Start</td>
<td>Imagine looking deep out into space. Describe the scene.</td>
<td>Try to use similes, metaphors, alliteration and lots of adjectives so I can really picture it! Think about the darkness, bright lights, the silence, the stillness and the weightlessness.</td>
<td>Think of different adjectives to use for the darkness like: inky, ebony, as black as... Think of adjectives to describe the lights like: blaze, burn, dazzle, flash, flicker, glint, glisten, sparkle, twinkle.</td>
<td>You could start with Deep out in space, then write that it is... as silent as... just the sounds of... as still as... distant stars flash like...</td>
<td>Does your description flow well... do you need to rearrange it at all?</td>
</tr>
<tr>
<td>Character</td>
<td>Tell me more about the main characters in your story.</td>
<td>Tell me what they are doing or thinking or planning or saying.</td>
<td>Use words which show how someone feels. They could stutter or shout perhaps!</td>
<td>You can show what someone is like by what they say like &quot;I'll go first.&quot; suggested Tim &quot;I'm not scared&quot;.</td>
<td>Do your characters act like this in the other parts of your story?</td>
</tr>
<tr>
<td>Setting</td>
<td>How do your characters feel about being in space?</td>
<td>What could you compare the feeling to? Scary, like a haunted house? This would be a good place to use a metaphor or a simile of your own!</td>
<td>There's lots of words you could use to describe how your characters feel. Try some of these: eerie, scary, spooky, frightened, excited, exhilarated.</td>
<td>Try using some of these connectives to start your sentences: Furthermore, Also, Whilst, If, Although, Clearly, Undoubtedly, Thinking about it.</td>
<td>Did you vary your sentences enough in this section? Did you write a short sentence? A question or questions? A complex sentence? Dialogue?</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Action</td>
<td>Make something unusual happen now.</td>
<td>You could bring in some strange or unusual characters now. Write what happens when your main characters meet them! How about an alien? Or a robot? Or a strange creature from planet Neeza? Does it arrive in a flying saucer? Or pop out from nowhere?</td>
<td>Use words like: There they were face to face with a hairy, orange alien. Angry, it jumped up and down, its antenna blazing red with rage.</td>
<td>Use adjectives to describe this character - how it looks and how it moves. Use a simile or metaphor to compare the way it looks or moves with something else.</td>
<td>This should be an entertaining section! Does enough happen?</td>
</tr>
<tr>
<td>Complication</td>
<td>I just know there will be a problem. Something will go wrong in your story soon! But may be things don't turn out to be quite as bad as they seemed at first.</td>
<td>Perhaps someone could get lost or left behind...Organise a search party!</td>
<td>Everyone will be anxious and worried at first...then relieved, pleased, thankful or ecstatic when the lost person is found.</td>
<td>Build up the event with lots of sentences. Something could be glimpsed. Something could catch someone's eye. Someone could hear something important. Someone could move something and discover...</td>
<td>Did things happen too quickly? Could you have described what happened and the scene a bit more.</td>
</tr>
<tr>
<td>Last</td>
<td>You'd better start bringing your story to an end now. You may need to sort a few things out first!</td>
<td>Does the spacecraft need to return? Will everything end well or will there be a problem left? Will the story appear in the news or kept as a secret?</td>
<td>Try to think of words you can use to sum up the adventure. Like this: &quot;That was the scariest mission I've ever been on!&quot;</td>
<td>Your last sentence is really important. Perhaps you could end with someone commenting on what has happened? Will a long or a short sentence be best?</td>
<td>Did you end at the right place do you think? Do you need to add anything else?</td>
</tr>
<tr>
<td>Target</td>
<td>Guiding prompts + ideas help</td>
<td>Word + sentence help</td>
<td>Check</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------</td>
<td>----------------------------</td>
<td>---------------------</td>
<td>-------</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| • Story contains sufficient detail and is a reasonable length | • Plot ideas for incorporation into story.  
• Key questions for expansion of ideas. | • Suggestions of suitable words and phrases to be included. | • Further suggestions given or reminder to consult help prompts. |
| • Planned/structure Paragraphs. | • The strategy organises stories into paragraphs concerning a predetermined selection themes e.g. start, setting, character. | • Suggestions for achieving an effective opening or closing statement. | • Reminds about the focus of paragraph |
| • Developed characters, dialogue interwoven with action and description. | • Examples of character types e.g. forgetful, clumsy, brave.  
• Record dialogue: conversation, thoughts, comments, feelings, reactions, at different points throughout story.  
• Reflect on characters actions.  
• Interaction: show relationship or conflict. | • Alternatives for said  
• Alternative positions for said (beginning, middle or end of speech).  
• Adverbs e.g. whispered quietly, suggested bravely.  
• Examples of using dialogue to explain a character or forward the plot e.g. "I'm the best! No one else comes close!" or "Ship Ahoy!")  
• Examples of descriptive phrases - 'scruffy, with a base-ball cap on backwards'. | • Reminders to show character's personalities in other sections.  
• Suggests that characters can change during a story e.g. from being trendy, to becoming adventurous.  
• Reminder to start a new line for each new person who speaks. |
| • Use of literary devices  
• Create pacing. | • Start with e.g. dialogue, action, description.  
• Describe setting using similes and metaphors.  
• Build up character descriptions slowly e.g. start a description of a dragon by discovering the tail, then work up body, to add suspense.  
• Unpredictable plot (complication) to add suspense.  
• Last prompt, bringing story 'full circle' ending with comment on action, dialogue, action, description. | • Suggestions for adjectives  
• Adjectives combined for effect e.g. alliteration.  
• Range of sentence lengths (minor, long descriptive etc.) and structure (questions, exclamations etc.)  
• Examples of subtle statements indicating future direction of the story e.g. "She said she was brave enough to tackle anything. At that moment she believed herself.' | • Reminds to incorporate the features e.g. 'Have you included a simile or metaphor in this section?'  
• Queries whether the twist in the tale is sufficiently unpredictable. |
| • Evidence of revising/redrafting | • Rehearse ideas inside head before recording.  
• Amend plans. | • Continual process of reviewing. Returning to previous sections to include extra information. | • Make revisions in response to help and check prompts. |
4.5 Stage two: editing

During the first stage, HARRY scaffolds much of the mature revision process integral to composition, prompting children to brainstorm ideas, and to reflect upon their choice of words and sentence construction etc. Children are reminded of the focus of each section. The strategy ensures the story follows an overall plan. However, whilst it was anticipated that the combination of composing and revising prompts would encourage some improvement in the quantity, quality and organisation of the resultant stories, it was recognised that the system should also offer feedback to assist children improve their grammar and punctuation, and correct their spelling errors. The guided teaching approach advocates highlighting places where changes could be made and demonstrating ways of improving writing quality. The process approach dictates that children should retain the freedom to choose how to make the changes. Therefore, places where grammar weaknesses are evident within a text needed to be brought to children's attention with suggestions for how to correct the problems. Research outlined in Sections 2.7.3 and 3.5 indicates the benefits of delaying editing feedback.

When the child has completed the composing stage, working through each section in turn in response to HARRY's prompts, the child's writing is transferred into the editing stage. The editing process is separated into two aspects: grammar and spelling. First, HARRY builds on the assistance available during the composition stage by providing feedback concerning grammar weaknesses, then the document is transferred into Microsoft Word, where the child is expected to correct technical errors and spellings with the aid of the spell-checker. Working through the story section by section, in the order that the sections were written in, HARRY identifies places where the text can be improved grammatically and makes suggestions for how to make the improvements. It is expected that the child will proof read and make appropriate amendments to the text, in the light of the advice. Three aspects of writing are commented upon at the editing stage: punctuation, vocabulary and sentence construction. Feedback suggestions drawn from these categories are then listed, in order to help children identify specific places where improvements can be made and how these could be effectively achieved. The children are expected to respond to each prompt on the list in turn. As with the composing section, the editing prompts are conversational in style.

With the editing feedback, it was not the intention to carry out a complete grammatical analysis, but to highlight some significant weaknesses which could be improved upon. Research by Kress (1994), Perera (1984) and Hall (1996) etc. discussed in Sections 2.4.2 and 2.4.3 indicates how poor writing is characterised by: lack of full stops, lack of commas
demarcating clauses, over use of basic connectives (such as 'and' and 'but'), sentences of similar length and frequently begun with simple sentence starters (pronouns and the definite article), and vocabulary which is both simple and frequently repeated. Mature writing is evidenced by: accurate demarcation of sentences with full stops, complex sentences demarcated with commas, a variety of sentence connectives, sentences which are varied in both length and the way they are started, and vocabulary which is adventurous, sophisticated and varied. The selection of features targeted by HARRY is based on these findings. HARRY's suggestions for methods of improving upon weaknesses, implements many of the teaching techniques advocated by O'Hare (1973), Shaughnessy (1977), and Robinson (1996) discussed in Section 2.7. The following section describes how HARRY detects grammar and style weaknesses and the prompts which are consequently delivered suggesting ways of achieving a more mature style.

4.5.1 Sentence construction

1. HARRY detects where the basic connectives and, but, because, then and so have been used twice or more in a sentence, suggesting: 'Try not to use the word [and] more than once in a sentence. You could replace one [and] with a comma, or a full stop followed by another word that fits'.

2. Sentences that start with the same word three or more times in one section, are detected and then commented upon: 'You have used the word [...] to start three or more sentences. Can you think of a different way to start these sentences?'

3. HARRY detects a sequence of three or more simple sentences (where each sentence is between 8 and 12 words long), commenting: 'You have several short sentences in a row. For a different effect, link two of them together with a word like: if, with, when, how, except, while, although'.

4. HARRY detects a sequence of three or more consecutive long sentences (between 14 and 20 words) and comments: 'You have several long sentences in a row. Try breaking one of them into shorter sentences to vary them'.

4.5.2 Vocabulary

HARRY checks for simple and frequently repeated words:

1. The simple words (One day, nice, big, said, went, walked, got, get, saw, ran, going, thing) are detected. Alternative more sophisticated synonyms are offered, or the suggestion is made for writers to think of an alternative for themselves (see Table 4.7). For instance, HARRY suggests 'You have used the word [nice]. You could use a better word like [beautiful, delicious, enjoyable, interesting or exciting]', or 'You have used the word [get].
Try a better word or words'. Table 4.7 does not include an exhaustive list of simple words as the selected words were considered a sufficient number to highlight and comment upon. Too many 'corrections' would, it was considered, prove tedious to young writers.

2. If the basic connectives also, so, then, but, because are repeatedly used in the whole text (determined empirically as being more than a threshold of 0.8% of total words) HARRY suggests: 'You use the word [so] a lot in your writing. Do you really need it?' etc.

3. If key words related to the story theme (journey, pirates, wood, space) are frequently repeated (again determined empirically as being more than a threshold of 0.8% of total words) HARRY suggests for example: 'You use the word [pirates] a lot in your writing. Try another word, or words, like shipmates, gang, bloodthirsty crew, dastardly bunch'.

Table 4.7 Synonym table for simple and high frequency words

<table>
<thead>
<tr>
<th>word</th>
<th>Synonyms</th>
</tr>
</thead>
<tbody>
<tr>
<td>One day</td>
<td>Tell me more about the day, like one hot, sunny, day.</td>
</tr>
<tr>
<td>nice</td>
<td>beautiful, fine, lovely, pleasant, delicious, enjoyable, interesting, exciting</td>
</tr>
<tr>
<td>big</td>
<td>huge, massive, enormous, vast, gigantic, large, endless</td>
</tr>
<tr>
<td>said</td>
<td>suggested, whispered, joked, promised, interrupted, muttered, yelled.</td>
</tr>
<tr>
<td>walk(ed)</td>
<td>amble, plod, dash, jog, crawl, wander, clamber, strode, ventured.</td>
</tr>
<tr>
<td>saw</td>
<td>spotted, noticed, recognised, glimpsed, watched, viewed, appeared</td>
</tr>
<tr>
<td>ran</td>
<td>dashed, rushed, marched, strode, skipped.</td>
</tr>
<tr>
<td>thing</td>
<td>use a word to tell me what the thing really is.</td>
</tr>
<tr>
<td>got/get</td>
<td>think of a better word or words to use</td>
</tr>
<tr>
<td>space</td>
<td>the black expanse, the endless night sky, the distant stars and planets, the mysterious darkness, the unknown galaxy, the unending darkness, beyond the stars.</td>
</tr>
<tr>
<td>journey</td>
<td>adventure, quest, mission, trip of a lifetime.</td>
</tr>
<tr>
<td>pirate</td>
<td>shipmate, sailor, gang, bloodthirsty crew, dastardly bunch.</td>
</tr>
<tr>
<td>wood</td>
<td>dense trees, thick undergrowth, dark forest.</td>
</tr>
</tbody>
</table>

4.5.3 Punctuation

Marking the end of sentences

HARRY indicates places in each section where full stops may have been omitted.

1. If more than 30 words are detected without a full stop, then the child is prompted to 'Check the long sentence beginning [...] It may need breaking up into smaller sentences'. The child is expected to locate the 'long sentence', then use the technique of
either pausing or intuition to find places where full stops could be correctly positioned. If a full stop, exclamation or question mark is missing at the end of the section, the prompt ‘You have forgotten the full stop at the end of this paragraph’ will be delivered.

2. Questions which are demarcated with full stops rather than question marks are identified. Sentences beginning with question words such as: Who, Where, What etc. which end with a full stop are detected, resulting in the prompt: ‘Do you need a question mark at the end of the question beginning [Where]?’

3. Minor sentences (one or two words) punctuated with full stops are highlighted, so that they can be replaced with exclamation marks, for example: ‘The word [Hello] needs an exclamation mark after it!’

Marking clause boundaries
HARRY highlights places where commas might be used within sentences to separate clauses.

1. The co-ordinating connectives but, so, yet and then used within sentences (indicating compound sentences requiring a comma before the connective) are detected. For example, HARRY suggests ‘You may need a comma before the word [but].’

2. Sentences which begin with a single-word adverb (ending ly) such as ‘Suddenly’, which require a comma after the adverb, are detected. HARRY also checks for other individual adverbs like: Also, Later, Next, First and Last; interjections like: Yes, No, Yeah, Well, Ah and Oh; and connectives like: Yet, Also and So, used at the start of a sentence. If an adverb, an interjection or a connective is detected without a comma present at the start of a sentence, HARRY suggests ‘You may need a comma after the word [Luckily]’ etc.

3. HARRY detects long complex sentences where commas may have been omitted, by highlighting places where between 12 and 30 words are written without the presence of a comma, full stop, brackets or comma like words (and, because, or, that). HARRY then suggests ‘Check the sentence beginning […]. It may need commas.’ It is anticipated that having been alerted to the error, the child will use pausing or intuition to find appropriate places to position commas.

To avoid tedious repetition of the editing prompts, if a child writes more than one sentence in a section containing several ‘and’s, uses the same words requiring a comma or a specific simple word which would be improved by substituting an alternative synonym more than once etc, the prompts in these cases are presented only once. This would have the benefit of reducing the number of prompts delivered, as it was considered that young children would find a very long list of editing suggestions disheartening. Furthermore, although the prompts have been presented in this section according to the category they relate to, in practice, the
prompts are programmed to be delivered in the order of: prompts requiring the child to identify long sections of text, followed by prompts requiring the child to scan the text in the search for individual words, as the latter is quicker and easier to do than the former.

4.6 The combined effects of stage one and stage two

Although the task of improving writing has been split into the two separate stages, they do not function in isolation. The process of improving a text is achieved by having both stages working towards fulfilling the same targets. Frequently, the second stage directly reinforces the first stage. For example: to help improve descriptions, the stage one prompts contains suggestions for suitable adjectives and reminders to write full descriptions including details such as sounds and colour. The editing prompts at stage two can advise on ways to improve on the resultant sentence constructions. Table 4.8 summarises how prompts delivered at both stages are designed to lead to all round improvements in a text. Figure 4.5 demonstrates how one section of text is shaped through the combined assistance provided at stage one and stage two.
Table 4.8 Summary of how the combination of assistance at Stage 1 and Stage 2 helps children improve their texts.

<table>
<thead>
<tr>
<th>Target</th>
<th>Stage One</th>
<th>Stage Two</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Words</strong></td>
<td>alternatives for simple words - examples like: going e.g. soaring, whooshing, accelerating, orbiting.</td>
<td>Changing simple words into sophisticated.(nice, big, said, went, walk, got, saw, ran, going, thing, one day).</td>
</tr>
<tr>
<td>• General variety</td>
<td>suggestions for suitable adjectives e.g. blazed, burned, dazzled.</td>
<td>Repetition of common link words (so, then, but, because)</td>
</tr>
<tr>
<td>• Variety of adjectives</td>
<td>Reminders for full descriptions including size, colour and shape etc.</td>
<td>Repetition of key topic words (pirate(s), space, wood, journey)</td>
</tr>
<tr>
<td>• Variety of adverbs</td>
<td>Alternatives for 'said' e.g. shouted, ordered, interrupted, called.</td>
<td></td>
</tr>
<tr>
<td>• Variety of verbs</td>
<td>Reminder to use adverbs to describe actions clearly, e.g. quickly, excitedly, carefully.</td>
<td></td>
</tr>
<tr>
<td>• Sophisticated vocabulary</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sentences</strong></td>
<td>Provide sentence starters e.g. Thinking carefully..., Just at that moment..., Quickly..., Although...</td>
<td>Repetition of three sentences or more in a section which start with the same word.</td>
</tr>
<tr>
<td>• Variety of constructions</td>
<td>Positioning the word 'said' in different places in a sentence.</td>
<td>3 simple sentences in succession. Suggestion to combine 2 simple sentences into a complex.</td>
</tr>
<tr>
<td>• Variety of types</td>
<td>Ask a question or a succession of questions.</td>
<td>3 similar length sentences in succession. Suggestion to break one up into smaller sentences.</td>
</tr>
<tr>
<td>• Variety of lengths</td>
<td>Include similes and metaphors.</td>
<td>2 or more 'and's, in a sentence. Choose alternative conjunctions from given suggestions.</td>
</tr>
<tr>
<td>• Variety of starters</td>
<td>Include very short sentences.</td>
<td></td>
</tr>
<tr>
<td>• Variety of connectives</td>
<td>Long detailed sentences.</td>
<td></td>
</tr>
<tr>
<td><strong>Punctuation</strong></td>
<td>Group adjectives into e.g. alliterative phrases.</td>
<td></td>
</tr>
<tr>
<td>• Full stops</td>
<td>Suggestions for alternative connectives e.g. with, after, when</td>
<td></td>
</tr>
<tr>
<td>• Commas</td>
<td>Suggestions given for speech, minor sentences, sentence starters, questions etc. punctuated correctly as a model.</td>
<td>Section missing a full stop at the end.</td>
</tr>
<tr>
<td>• Question marks</td>
<td></td>
<td>Long sentences (more than 30 words without a full stop).</td>
</tr>
<tr>
<td>• Exclamation marks</td>
<td></td>
<td>Long phrases (more than 12 words without commas).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Adverbs (words ending iy) and specified interjections to have a comma after them when used at start of sentences.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Commas before specified connectives e.g. but</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sentences starting with question words e.g. Who, should end with question mark.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>One and two word sentence to end with exclamation mark.</td>
</tr>
</tbody>
</table>
cold and misty night when the children and their parents reached the house. A crack of lightning filled the air, lighting up the old manor. Its' creaky and unstable roof shook unsteadily. The moss that lay on the floor, snaked its' way up the bottom half of the house, ivy covered the roof and upper walls, a mass of green. The thunder clapped over the surrounding wood. The dense trees swayed violently. A large branch cascaded down a gnarled old oak.

Figure 4.5 The combined assistance of stage one and stage two prompts on a text
4.7 Implementation

HARRY is implemented on a Windows NT web server, using ASP scripts to communicate with a series of Microsoft Access databases. All interaction with HARRY is via a standard web browser. Several JavaScripts are embedded within the HTML files downloaded to the client's web browser. These are used to open and close additional dialogue boxes. A cookie is written to the client's computer, after the story theme has been selected, which contains the story strategy that will be followed and this is used to store where the child is during the story should s/he decide to leave finishing the writing for another occasion. When the child returns to continue a story, the cookie is checked; this provides a track of where within the strategy the child is, and authentication of the child. However, it does require that the child uses the same computer to write their story. The child's story is stored within an Access database on the web server. Separate databases are used for the first (composing) stage and the second (editing) stage. Thus it is possible to separately assess the progress made by a child during both the composing and editing stages. Within the story theme databases, prompts are stored which are displayed according to the strategy of the story used together with the child's response made in previous sections. These are taken from the databases by the ASP scripts running on the server, and converted into HTML for downloading to the client's web browser. Likewise, the child's response is stored in his/her database using ASP scripts.

4.8 Early prototypes

The current HARRY system described in this chapter evolved from three earlier prototypes. The prototypes were tested by two children, who were observed as they wrote stories using the developing tool. The task analysis helped indicate ways the system could be improved. The main features of the three earlier prototypes are briefly explained in this section, followed by a short evaluation based on the children's experiences. The description shows how HARRY evolved into its current form. Material drawn from this section was published in the proceedings of the 2nd International Workshop on Narrative and Interactive Learning Environments, Edinburgh, Scotland (Holdich and Chung, 2002).

4.8.1 Prototype 1

With the first prototype, the aim was to replicate the 'what next?' approach. A database was constructed in Microsoft Access containing four tables: Key Question, Open Question, Synonym and Write. The database was populated with two kinds of prompting questions related to a pirate story theme: general prompts contained in the Open Question table and prompts linked to specific words which appeared in the text, contained in the Key Question
The prompts were simply a random selection of any suggestions thought to be appropriate when writing a pirate story. The Open Question table contained prompts such as:

- That is interesting, tell me more
- Focus on describing the surrounding
- How about someone suddenly appeared?
- How about something unusual is found... perhaps a magic key? A message in a bottle? A wreck? What can you think of?

A synonym table contained words likely to be used by a child when writing a story about pirates which were converted into Key Words, for example:

<table>
<thead>
<tr>
<th>Change from</th>
<th>Change to</th>
</tr>
</thead>
<tbody>
<tr>
<td>Captain</td>
<td>pirate</td>
</tr>
<tr>
<td>Crew</td>
<td>pirate</td>
</tr>
<tr>
<td>Pirates</td>
<td>pirate</td>
</tr>
<tr>
<td>Boat</td>
<td>ship</td>
</tr>
<tr>
<td>Cabin</td>
<td>ship</td>
</tr>
</tbody>
</table>

In this way, specific questions could be asked about the pirates and their ship etc. The Key Question table contained prompts directly related to the Key Words, such as:

<table>
<thead>
<tr>
<th>Phrase</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pirate</td>
<td>Tell me more about the crew.</td>
</tr>
<tr>
<td>Ship</td>
<td>Tell me what is going on in different parts of the ship so that I can really picture the scene.</td>
</tr>
<tr>
<td>Sea</td>
<td>There may be an island ahead!</td>
</tr>
</tbody>
</table>

The delivered prompting questions and responses were stored together in a fourth table called Write.

When writing a story, two boxes were presented on the screen (Figure 4.6), one containing a prompting question, the other left blank ready for the writer's response. When a new idea was required, the user could click on the 'what next?' button, which resulted in a new pair of boxes, one containing another prompt chosen at random, the other empty, waiting for the response. The child was expected to type a response to the question in the reply box at the bottom of the screen before requesting another question. The intention was that HARRY would ask open ended questions rather than closed, in the expectation that children would write more extensively. For example, a child might respond to a question such as 'What did you do when you saw the monster?' with a short answer such as 'I crept past it'. An open ended statement such as 'Tell me about the first sighting of the monster - who saw it first and what did they think and do about it?' might encourage a child to write reflect around the topic and write longer responses.
There was a bunch of deadly pirates, their names where: Blackhole Bill, Sruffbag Sam, Terrible Ted and the captain was called Whitebeard Willy. Their cabin boy was called Tom. Let me tell you more about these pirates of the deadly seas! Aren't you afraid of Blackhole Bill? He's actually quite stupid, doesn't know anything about rigging and asked to bring a sail down? He'd pull down the wrong cord and before you could say "Billy!" (which is what he's known as) you'd hit on the head with the mast! Scared of Sruffbag Sam?

Figure 4.6 Screen design, prototype 1

Evaluation

The first story to be written with the system (see Appendix B.2) was very successful! The prompts had occurred in a useful sequence and appeared to have helped the story progress. The story opened with an amusing description of each of the 'stupid' pirates. There was a detailed description of the setting and the main event was described: pirates discovered a message in a bottle and had a battle over some treasure (chocolate coins) with a band of cutthroat robbers. There was a twist in the tale: the pirates ended up stealing some treasure from the robbers. This they returned to the rightful owners, indicating that in spite of their fierce sounding names, they had morals and a sense of fair play. Finally, the story was brought to a satisfactory resolution and ending with a succinct closing statement. The mood and tone were well conveyed. A 'happy-go-lucky' lively mood was created and sustained throughout the piece, achieved by the writer devising unusual and hilarious plot ideas, asking rhetorical questions and regularly interspersing descriptions with colloquial dialogue. Although the system appeared to have worked successfully, it was recognised that the prompts had not directly contributed to this effective narrative, as they did not suggest that any of these successful literary features should be included - the writer testing the system was already a successful writer. Much of the focus of the later prototypes, was directed at improving the prompts, so that they could elicit from other children the kind of quality evident in this first story.
The system was tested again by the same able writer, but with another, larger set of prompts related to a seaside theme (see Appendix B.2). The random selection of the prompts, which had been successful during the creation of the pirate story proved unworkable with the seaside story. Furthermore, the prompts did not suggest useful strategies for writing an effective narrative. The resultant story was badly written. For example: the introductory prompt: ‘Imagine you go to the seaside’ elicited a boring start:

‘I went in the car to the beach. It was a long journey and I eat (sic) a sweet or two on the way. We finally got to the seaside and I got out of the car and ran towards the glorious deep blue sea’.

The story then became a catalogue of almost unrelated events - a ‘what next?’ story at its worst. The prompts suggested writing about some speedboats, finding something to eat, getting Mum to say something, making someone fall over, describing the sea, a boat capsizing, the arrival of sharks and swimming in the sea. HARRY never suggested ending the story, consequently, the story was 'abandoned' without an ending. The story sounded more and more ridiculous as it continued - partly due to the diverse range of events covered and partly because the writer was taking the whole exercise less and less seriously. Far from helping the writer achieve an effective story, the system 'helped' the writer to write badly. The story was disjointed and although adjectives, adverbs and metaphors were used in parts, these had little impact in creating a suitable mood for the piece.

A closer analysis of the seaside questions revealed that the open questions could be subdivided into categories of similar types, such as questions relating to the beginning, setting, characters, action, complication, and the ending of a story, to provide a skeleton outline of a story, as suggested by Wray and Lewis (1995) - see Table 2.4. Prototype 2 included a strategy for a pre-planned delivery of prompts and revising questions related to each of the composing question categories.

4.8.2 Prototype 2

The stories written with the first prototype lacked logical progression - they epitomised the 'what next?' strategy at its worst. The problem was caused by the complete randomness of the prompts, too many key word prompts being delivered and repetition of prompts. With the second prototype, a ‘strategy’ table was created to enable HARRY to structure stories, making it possible to ensure that all the elements of a successful story, such as setting and character descriptions, or how to start and end a story were adequately and logically presented. The Open Questions were sub-divided into seven sections, in line with Wray and
Lewis's (1995) story writing frames (Table 2.4): 'Welcome message', 'Start', 'Setting', 'Character', 'Action', 'Complication', 'Last'. The order of the sections could be varied according to the needs of the story. The Key Questions were recorded in the database as a pair - a subsequent prompt could be directly linked to the first of the pair, in the expectation that an additional prompt would help the writer to revise. In addition, the facility to move backwards and forwards between sections of text was added so that writers could reread and/or make changes to earlier parts of their stories. It was also made possible for the user to temporarily stop writing. The improved screen design reflecting these changes is presented in Figure 4.7.

![Figure 4.7 Composing screen (prototype 2)](image)

A second stage was also created. HARRY suggested that the writer revised the whole text after the draft had been completed, a section at a time. A comment table stored revising questions under the same section headings as the composing prompts, in order to make them as relevant as possible to the composing suggestions. Calkins' (1986, p.230) suggestions for open-ended, non-directive questions for teachers to use when conferencing children and the revising questions used in CATCH (Daiute, 1985) formed the basis of the revising questions stored in the comment table. Writing was now separated into two distinct stages: composing and revising. When the user had finished responding to the final composing prompt, the 'what next?' button returned the user to the first section of the completed story. A new box contained the suggestion to begin revising the document. By
clicking on the right arrow, the child could move through the sections of the story, receiving general ideas for how to improve the text. The child was left to decide what changes to make, altering the text in the light of the suggestions. As the screen contained three boxes, the original prompting question could still be viewed. The revising screen design is presented in Figure 4.8. Examples of the initial prompts for a space story and revising comments are provided in Table 4.9. Prompts for another story theme - 'Strange Creature' were also devised.

Table 4.9 Example composing prompts and revising comments (prototype 2)

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Composing Question</th>
<th>Revising Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welcome</td>
<td>Let's write a story about an adventure in space. Jot down some ideas for this story in the box below.</td>
<td>We are going to revise the story.</td>
</tr>
<tr>
<td>Start</td>
<td>You could start with someone asking a question. Who will reply?</td>
<td>Do you like the way you have started your story?</td>
</tr>
<tr>
<td>Setting</td>
<td>Describe what it is like in space using lots of adjectives or a simile. E.g. It was as spooky as ...?</td>
<td>Do you think you've written enough to make me feel, hear, and see what you're talking about?</td>
</tr>
<tr>
<td>Character</td>
<td>Tell me more about the characters in your story. What they are doing, planning and saying?</td>
<td>Can you tell me more about your characters - what they are like?</td>
</tr>
</tbody>
</table>
Action | Boo! Scare me! Make me jump! What's there? | Could you have made the action sound more exciting?
---|---|---
Complication | Something or someone could unexpectedly attack! | I would like to hear more conversation!
1st Key (alien) | Tell me more about the alien... What it looks like, how it speaks, how it moves. | Can you find a sentence you could expand with more adjectives.
2nd Key | Tell me something funny the alien does. | Try using different words for said.
Last | Start bringing your story to an end now. | Does the end of your story fit in with what you wrote at the beginning?

**Evaluation**

As the second HARRY prototype now offered greater assistance - guiding a writer through a story plan - the system was tested by a poorer writer, who chose the strange creature theme (see Appendix B.2). Of particular interest at this time, was the effect of the revising prompts. The initial composition appeared fairly successful - with the child responding adequately to the prompts - and producing a reasonable story. The draft would have benefited from some changes being made to improve the story however - the aim of the revising section. Observing the young writer's attempts to make improvements to the story revealed the inadequacy of the revising questions however.

When revising, the writer responded to some prompts, but not to others. The prompt: "Is there anything you would like to change here?" resulted in the writer noticing that some speech marks were missing. A pair of speech marks were duly inserted - but this was merely a surface feature. Another revising prompt: 'Could you have written more here?' was more successful as it resulted in the writer adding a short phrase at the end of the section. In response to the prompt: Can you tell me more about your characters - what they are like? the writer added another sentence at the end of the section, but thought it necessary to contain this additional information within brackets: ' (Kitty was very kind here is an example if you told Kitty to keep a secret she would keep it).'

The writer made no changes in response to the prompt 'Can you find a place where you could add another describing word?' perhaps because, like some of Bartlett's (1982) writers, no suitable places were identified. Likewise, no changes were made in response to the following two prompts:

'Is it easy to guess what is going to happen in your story do you think? Can you make a better surprise happen?'

Can you see any mistakes here? You could correct them now!
Yet, there were many places where improvements could have been made. The story was difficult to understand in places, and there were many spelling mistakes and style weaknesses. The lack of response to the revising questions brought home the findings of the research discussed in Section 2.4.3, that beginner writers rarely initiate revisions such as adding, substituting or deleting text. HARRY's approach of encouraging revision, after the child had finished writing looked like it would be unhelpful. It was also inappropriate because writing with HARRY was now a linear process. In addition, account needed to be taken of Bartlett's (1982) research - that children need specific help with detecting, identifying and correcting grammar and style weaknesses. Refinements to the system were called for.

4.8.3 Prototype 3

With prototype 3, the composing stage was refined to facilitate ongoing revision with pertinent prompts. Three more fields were included in the database and three buttons were correspondingly added to the screen - 'Help with ideas', 'Help with sentences', and 'Help with words'. The screen design reflecting this change is presented in Figure 4.9.

![Figure 4.9 Screen design, prototype 3](image)

The story prompts, created for prototype 2, were refined so that a prompt guiding the story structure was supported by extra suggestions supplied in a third box for reviewing alternative plot ideas, vocabulary choice and sentence construction. By creating extra fields in the database, it was possible to make the subsidiary prompts directly pertinent to the original
prompting question. Combining all the available help, HARRY's dialogue aiming to help a child compose and revise an effective character description for example, could now proceed in the following way:

**Woodland theme guiding character prompt with supporting help prompts:**

**Guiding prompt:** What is the person like who owns the house? Friendly? Mysterious? Old? Eccentric?

**Ideas help:** Think about what the owner does all day and whether the owner likes children. What does the owner do or say which shows this? What does the owner look like? Describe the clothes the owner wears.

**Sentence help:** Describe the owner's face and the way the owner moves. Use similes or metaphors. He moved slowly like ... Her face, though tired and old, had blue eyes as bright as ...

**Word help:** The face could be: bright and full of fun, wrinkled and wizened, pale, suntanned and he or she could move about the house energetically, slowly, silently.

The databases were populated with prompts that were generated from imagining various possible story lines and by imagining 'shared and guided' writing sessions conducted with an imaginary class during literacy lessons. Many years of teaching experience gained with 7-10 year olds facilitated this process. Thoughts were brainstormed, recorded, then allocated to appropriate 'pigeon holes' in the databases, in order to recreate, albeit rather simplistically, the idiosyncratic mature thinking process which involves a random, unpredictable pattern of thoughts about plot ideas, sentence constructions and relevant words etc. In other words, a teacher's thoughts and ideas, which ordinarily might be suggested to children generally during a guided writing session, were pre-recorded so that they could be delivered by the computer, to provide children with individual assistance. The prompts aimed to teach the many literary techniques (presented in Sections 2.6.2 - 2.6.6) and ways of promoting mature sentence constructions and vocabulary (presented in Section 2.7) in response to Graves' (1983) assertion that writing is a craft, and that the teacher, as the more experienced crafts-person has the role of teaching pupils the skills of the trade. The friendly, interesting, constructive suggestions created for HARRY reflected the particular teaching style of the teacher-researcher concerned. The prompts aimed to be a combination of the process and guided approaches (Graves, 1983, and Bereiter and Scardamalia, 1987) underpinning the shared and guided teaching approach recommended by the National Literacy Strategy (1998). The suggestions offered by the computer tutor were expected to excite, inspire and challenge the children's own thinking - that is create instances of cognitive conflict - just as a real teacher's suggestions might. In short, HARRY's thoughts and suggestions were those of the teacher-researcher. Teachers use dialogue to verbalise to the whole class the thinking
that is necessary when creating a story. The prompting system, with its pre-recorded dialogue, would be used later in a classroom to create a 'conference' style situation between an individual child and the 'computer tutor', a situation that is difficult for a human teacher to achieve in view of constraints such as lack of time and large class sizes.

**Evaluation**

At this stage of the system's development, it seemed reasonable to expect that HARRY's assistance would be helpful to a child when composing a story. Both the children involved in testing the system prior to the school study, wrote a space story with prototype 3 (see Appendix B.2). Both children wrote interesting stories that followed the main themes suggested by HARRY, but, to begin with, the children rarely consulted the help boxes. The suggestion was therefore made that the children always open all the help boxes when first starting on a section, so that they would know what help was available. They could then return to the help box if they felt it was helpful to do so. This suggestion was also made to the children involved in the school studies. Although the composing/revising stage may have benefited from further refinement, it was felt that it was sufficiently far developed to move onto prototype 4 which would feature editing feedback.

**4.8.4 Prototype 4**

Prototype 4 is the current version, the functions of which have already been described in detail in this chapter. To summarise, with the fourth prototype, the writing process is divided into three stages. The first stage facilitates composition and continual revision. The second stage provides editing suggestions for how to improve upon detected grammar and style weaknesses. Spelling and technical errors are corrected during the third and final stage, when the story has been transferred to Microsoft Word. The system was transferred to the web because primary schools are not generally equipped with Microsoft Access, but are connected to the Internet. Four story data bases containing the composing/revising prompts, created for prototype 3, were transferred to the web-based system. A 'Check' question was added to remind the child of the focus of each section. Both children pilot tested HARRY once more before the system was taken into a school. The effectiveness of the editing section was of particular interest at this time. The children appeared to enjoy making the editing changes. They treated the exercise as a game. However, for some sections the children felt there were too many editing suggestions. Reducing the number of 'simple words' detected (see Table 4.7) helped to shorten HARRY's list of suggestions, and make the task seem less daunting.
Although prototype 4 was the 'final version' of the HARRY system, the tool was still regarded as a prototype. It was appreciated that the help provided by prototype 4 was far more limited than that which could be provided by a human tutor. Teachers talk out loud, point with a finger, make encouraging comments, respond to what the child has written and can give an alternative suggestion if the child does not find the first suggestion helpful or relevant. HARRY is not able to offer these features. At the composing stage, HARRY gives general advice felt to be appropriate for most children of the 8-10 year age range. It was recognised, that additional features such as speech synthesis, which could help reduce the amount of reading involved, and direct help with locating the grammar and style weaknesses detected by HARRY, such as underlining or highlighting words and phrases etc. might be useful to children, but these refinements would require considerably more programming than time permitted. To enable HARRY to check whether the child responded adequately to the available advice, or to offer suggestions that were appropriate to the individual needs and abilities of each child, as a human tutor might would also require much further work. However, the tool was considered sufficiently far developed to conduct a formative study to assess the effects of a writing intervention strategy delivered by the computer, that provides a scaffolding of a more advanced writing process, upon children's writing behaviour and performance. This could be an important first step towards achieving a possible future goal - developing a writing tool that can respond contingently to a child, like the systems developed by Wood and Wood designed to help children solve mathematical problems, described in Section 3.6.

4.9 Conclusions

Children usually expect to compose perfectly at their first try. For them, writing is a one-step process. Mature writers realise that writing a perfect first piece is impossible. Writing involves reworking texts - polishing sentences and selecting alternative words to convey the intended message more accurately. HARRY aims to change the way children approach the task of writing by providing a scaffolding of the thought processes of mature writers, encouraging them to experience first hand, the struggles that mature writers experience whilst shaping their texts. HARRY mirrors the idiosyncratic reflective thought processes of mature writers; the help buttons display several thoughts almost simultaneously alongside the main guiding prompt when requested. For example, plot ideas are combined with suggestions for how to improve a description by using adjectives and similes; suggestions for writing character description are accompanied by a reminder to use dialogue etc. In addition to changing a child's approach to the task of writing, HARRY explains techniques for how to write effective stories. Importantly, as children's stories usually lack organisation, HARRY, by modelling story frameworks via the strategy, contributes to the task of improving children's
story structure. The prompts stimulate the writer's search for content, make allowance for tangential ideas, then return the writer back on track, when the writer is ready. As editing is likely to stifle children's flow of ideas, the editing stage is delayed until the completion of the draft. However, although HARRY separates the processes of revising and editing, they are also related for they aim to help achieve the same targets. The findings of research and recommendations contained in the government documents related to narrative writing have been rigorously applied to the system to ensure that it both accurately resembles the mature writing process and offers appropriate expert knowledge regarding effective narrative writing techniques.

Two separate studies were conducted in a primary school to evaluate firstly, the effects of using the HARRY writing system upon children's writing behaviour and performance, and secondly the effect of a single use of the system followed by complete removal of the scaffolding, upon children's subsequent writing performance. The results of the school studies are discussed in Chapters 6 and 7. Chapter 5 details the methods chosen for assessing stories written with HARRY, including how a precise and systematic way of automating the analysis of children's grammar and style was established.
Chapter 5
ASSESSMENT

5.1 Introduction

Before undertaking a school study to evaluate the effects of the HARRY writing system, a fundamental question needed to be resolved: how to assess the stories produced, consistently and precisely. The National Curriculum Level descriptions, outlined in Table 2.1, assess children's writing in two broad areas: the whole text (purpose and organisation) and grammar (including punctuation, syntax and vocabulary). However, this 'best fit' descriptive method of assessing children's writing was considered insufficient for a detailed comparison of stories written with and without HARRY's assistance. A more sensitive method of objectively discriminating between some features of story writing than is possible with the National Curriculum levels was required, in order to demonstrate precisely the similarities and differences between two pieces of children's writing. Material drawn from Sections 5.1-5.3 has been presented in a paper accepted for publication by Computers and Education (Holdich, Holdich and Chung, 2002 - see Appendix C).

An appropriate approach for assessing the quality of children's writing was believed to involve the selection and comparison of particular elements which were quantifiable. Quantitative measures could include counting grammar features such as: frequency of words, sentence lengths and punctuation marks etc. If the countable features proved useful as indicators of technical writing ability, this assessment could be automated by a computer tool. A computer analysis of the grammar element of children's writing could provide a precise and objective method of assessment. Nevertheless, it was appreciated that certain features of successful story writing, such as whether the story has an opening which captures the reader's attention or an imaginative plot etc. are not easily quantifiable. Therefore, children's stories would also require a qualitative assessment of these features.

In order to create a computer generated analysis of children's written grammar, it was necessary to identify useful countable features which would help discriminate between different levels of writing ability. The research literature concerned with children's writing development outlined in Chapter 2 and the National Curriculum Level descriptions indicated several suitable linguistic features. An analysis was performed upon a small sample of 12 stories (reproduced in Appendix B.1) written by 11 year olds for the Key Stage 2 SATs writing test. The stories were obtained from two publications, provided by the School Curriculum and Assessment Authority (HMSO 1997,1998) as examples of the different
standards of attainment associated with the end of Key Stage 2. Table 5.1 shows the range of levels of the sample texts.

Table 5.1. Examiners' assessment of sample children's stories from Key Stage 2 National Curriculum Tests

<table>
<thead>
<tr>
<th>Story number</th>
<th>1</th>
<th>2</th>
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<th>6</th>
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<td>28</td>
<td>30</td>
<td>32</td>
<td>33</td>
<td>35</td>
</tr>
<tr>
<td>N.C. Level</td>
<td>2c</td>
<td>3b</td>
<td>3a</td>
<td>4c</td>
<td>4b</td>
<td>4a</td>
<td>4a</td>
<td>5c</td>
<td>5b</td>
<td>5a</td>
<td>5+</td>
<td>5+</td>
</tr>
</tbody>
</table>

These examples were chosen for analysis because they had been objectively marked by official examiners who had selected them as suitably representative. The most significant and unique feature of the sample, was the availability of detailed written comments from the assessors which highlighted why each story achieved a particular level. The sample was limited in size because these stories are the only test examples currently publicly available that are accompanied by such written comments. Despite its small size, the sample was considered useful for a formative study to establish a methodology which could indicate strengths and weaknesses in children's written grammar. The benefit of performing a computer statistical analysis on this particular collection of stories was that the computer analysis could be compared to a reliable and objective human interpretation.

5.2 Features of writing selected for statistical analysis

Based on the findings of the research and upon features covering vocabulary, sentence construction and punctuation, outlined in the National Curriculum levels, ten indicators of language skill were chosen for analysis. The indicators were chosen to cover the three main aspects of grammar and style - sentence construction, vocabulary and punctuation, in order to try to detect the following signs of increasing maturity:

- development from simple to complex sentence constructions, taking into account how mature writers control their sentence structures and apply them appropriately;
- movement from limited vocabulary, with imprecise and general meaning, to a vocabulary which has a greater precision; and
- increased accuracy with punctuation.

In addition, it was anticipated that story length would act as a general indicator of writing development. Harpin's (1976, p.54) study across all four years of Key Stage 2 for instance, revealed a clear increase in output year on year and Bereiter and Scardamalia (1982, p.10)
suggest that the total 'number of words correlate substantially with any indicators or quality or maturity applied to writing'.

The ten indicators chosen for analysis by the computer are identified here together with references to some of the research that justifies their inclusion:

**general**
1. The total length of the story in words (Harpin, 1976, p.54; Bereiter and Scardamlia, 1982, p.10).

**vocabulary**
2. The number of different words used in the first 100 words - targeting repetitive vocabulary (Harpin, 1976, p.55-6, Perera, 1984, p. 257).
3. Common verbs used (said, went, got, get, was, were) as a percentage of total number of words (using the first six verbs appearing on a word frequency list compiled by Huxford et al., 1997 p.19) for six-year-olds, that are also compatible with Reid's (1989) frequency list for seven-year-olds).
4. The number of different words with more than 5 characters as a percentage of total words to help distinguish sophisticated from basic simple vocabulary (Huxford et al., 1997).
5. Detecting sophisticated vocabulary - number of adverbs as a percentage of total words (Perera, 1984, p.252).

**sentence constructions**
6. The number of 'and's used as a connective as a percentage of the total words - targeting the most basic sentence connective used by children (Harpin, 1976, p.62; Perera, 1984, p.245).
7. Other basic common connectives (but, so, then, because) as a percentage of the total number of words as an indication of immature sentence constructions (Perera, 1984, p. 245; Huxford et al., 1997, p.19).
8. The percentage of sentences started with personal pronouns, and the definite article as an indication of immature sentence constructions (Perera, 1984, p. 241).

**punctuation**
10. Commas used as a percentage of mean sentence length, as a measure of the presence of correctly demarcated complex sentences - a sign of mature writing, (Perera, 1984, p. 248; Crystal, 1995, p. 278; Wilde, 1996).
A program, written in Visual Basic Script, was created to supply statistical information about each text. The information was then compared to the examiners' interpretation of the syntactical patterns that contributed to the effectiveness of the text.

5.2.1 Story length

The results of the comparison of output from the sample stories, as shown in Table 5.2 indicate that the length of a story was related to the level of attainment achieved: the longer the story, the higher the level achieved. It would appear that a minimum of approximately 300 words is required to explain a story in sufficient detail in order to gain Level 4, whilst the ability to write approximately 400 words, or more, is likely to achieve Level 5. Although a clear trend is apparent, story length by itself was considered an inadequate indicator of mature or immature writing.

Table 5.2 Number of words in stories in sample stories at the end of Key Stage 2

<table>
<thead>
<tr>
<th>Story number</th>
<th>1</th>
<th>2</th>
<th>3</th>
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</tr>
</thead>
<tbody>
<tr>
<td>N.C. Level</td>
<td>2c</td>
<td>3b</td>
<td>3a</td>
<td>4c</td>
<td>4b</td>
<td>4a</td>
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<td>5b</td>
<td>5a</td>
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<td>5+</td>
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<tr>
<td>Total words</td>
<td>228</td>
<td>289</td>
<td>246</td>
<td>380</td>
<td>316</td>
<td>364</td>
<td>385</td>
<td>400</td>
<td>394</td>
<td>447</td>
<td>608</td>
<td>829</td>
</tr>
</tbody>
</table>

5.2.2 Vocabulary

Variety of vocabulary

Harpin's (1976, p.56) technique for testing for the variety of vocabulary contained within texts written by children of different ages, was applied and extended. This involved expressing the number of different words used (type) as a proportion of the total number of words (tokens), producing a type-token ratio (TTR). For example, a paragraph containing 100 words could contain 65 different words. This would give a ratio of 0.65. Like Harpin, the TTR was calculated for the first 100 words of each of the 12 stories. The results are recorded in Table 5.3.

Table 5.3 Harpin's Type Token Ratio (TTR) for the sample stories

<table>
<thead>
<tr>
<th>Story number</th>
<th>1</th>
<th>2</th>
<th>3</th>
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</thead>
<tbody>
<tr>
<td>N.C. Level</td>
<td>2c</td>
<td>3b</td>
<td>3a</td>
<td>4c</td>
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<tr>
<td>TTR</td>
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<td>0.65</td>
</tr>
</tbody>
</table>

Broadly, the lower levels of attainment resulted in low TTR ratios whilst the higher levels of attainment resulted in higher TTR ratios, although the results inevitably deviated on
occasion, depending on the strengths and weaknesses of the particular young writer and on the theme and organisation of the story. The figures reflected the comments made by the examiners: the variety of vocabulary in stories 10 and 11 (with a TTR of 0.73 and 0.75 respectively) were especially commented on, whilst the lack of variety or frequent repetition in stories 1 and 2 (with a TTR of 0.54 and 0.60) was also noted. Stories 5 and 8, with a TTR of 0.68, received comments such as 'some well chosen vocabulary'. Story 7, with a relatively low TTR of 0.59 was reported as having adventurous and well-chosen vocabulary such as 'overflowing and collided'. Close examination of the text revealed that the writer also frequently repeated many straightforward words such as 'mum', 'couldn't' and 'tree' not commented upon by the examiners. Harpin (1976) suggested that the sharper the drop in TTR after the first 100 words, the less diverse a child's vocabulary resources were likely to be. The drop in TTR after each subsequent 50 words for all the stories was therefore recorded and plotted in order to determine whether the rate of drop correlated with the levels of attainment. The graph was then normalised with respect to the initial value to illustrate more clearly the rate of drop and this is presented in Figure 5.1.

![Figure 5.1 Reduction in Harpin's Type Token Ratio for words used after the first 100 words](image)

Whilst the TTR for the story achieving Level 2 dropped sharply, there was little to discriminate between the other levels. Although Harpin was correct in his hypothesis that the rate of fall in the TTR would reveal the extent of variety of a child's vocabulary, the results did
not prove useful in a quantitative analysis of the various levels. The TTR of the first 100 words gave the clearest indication of the diversity of a child's vocabulary resources.

**Common verb forms**

As the simple verbs *said, went, was, were, got* and *get* are commonly used by young, beginner writers (Reid, 1989; Huxford, McGonagle and Warren, 1997), it was anticipated that children achieving higher levels would demonstrate their ability to express themselves clearly through the use of alternative verbs to *said, went, was, were, got* and *get*, in order to describe actions precisely. The percentage of words used, which were common verbs, was therefore calculated and is presented in Table 5.4.

**Table 5.4. Number of common verbs used as a percentage of total words for the sample stories**

<table>
<thead>
<tr>
<th>Story number</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>N.C. Level</td>
<td>2c</td>
<td>3b</td>
<td>3a</td>
<td>4c</td>
<td>4b</td>
<td>4a</td>
<td>4a</td>
<td>5c</td>
<td>5b</td>
<td>5a</td>
<td>5+</td>
<td>5+</td>
</tr>
<tr>
<td>% of common verbs</td>
<td>9.6</td>
<td>2.8</td>
<td>5.7</td>
<td>5</td>
<td>4.7</td>
<td>4.9</td>
<td>4.9</td>
<td>3.3</td>
<td>5.6</td>
<td>4</td>
<td>2.3</td>
<td>4.7</td>
</tr>
</tbody>
</table>

As expected, story 1, achieving Level 2c had a high dependence on common verbs. Story 2 used surprisingly few. This may have been because the story lacked dialogue with the result that the verb 'said', frequently over used by immature writers, was not used at all. The stories achieving level 5c and above, with the exception of stories 9 and 12, showed less of a dependence on the common verbs than the stories achieving the lower levels.

**Word length**

A test was designed which attempted to detect the degree of sophistication of words used, other than the verbs discussed above. It assumed that a sign of more sophisticated vocabulary is a frequent use of long words; that is moving away from using simple, short words like 'big' and 'nice', to using more sophisticated, longer words like 'enormous' and 'beautiful'. However, the computer would be unable to distinguish between basic but 'long' words, such as 'lovely' or 'netball', and more adventurous and imaginative vocabulary, such as 'glistened' or 'irritating', used to create poetic effects, personification, alliteration, assonance and metaphors etc. The percentages of words longer than 5 letters, excluding repeated words, are recorded in Table 5.5.
Generally, the results were consistent with the examiners' comments about vocabulary choice. Story 1 for example, was described as containing very simple vocabulary; story 7 was noted for its choice of appropriate vocabulary, whilst stories 5, 6, 8, 10 and 11 were reported to have some well chosen and imaginative vocabulary. Stories 7 and 12 had fewer long words than might be expected for the level achieved, corresponding to relatively few sophisticated words present in their writing. This could indicate a weakness in the writing skills for the young writers concerned, spelling difficulties, or that the writers felt simpler words were appropriate on this occasion.

**Adverbs**

Another aspect of vocabulary growth, is the range of senses which words can communicate. This means taking account of the shades of meaning that can be attributed to words. As the adverbial element in a sentence provides important information about the time, manner, place and reason, of the actions of the verb, a higher proportion of adverbs present in a story could therefore indicate a more sophisticated vocabulary. The test checked for single word adverbs ending *ly*. The percentage of words used in a text which are single word adverbs ending *ly*, is recorded in Table 5.6.

**Table 5.6 Adverbs used in each sample story as a percentage of total words**

<table>
<thead>
<tr>
<th>Story number</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>N.C. Level</td>
<td>2c</td>
<td>3b</td>
<td>3a</td>
<td>4c</td>
<td>4b</td>
<td>4a</td>
<td>4a</td>
<td>5c</td>
<td>5b</td>
<td>5a</td>
<td>5+</td>
<td>5+</td>
</tr>
<tr>
<td>% of adverbs</td>
<td>0.4</td>
<td>0.3</td>
<td>1.6</td>
<td>1.1</td>
<td>1.3</td>
<td>0.8</td>
<td>0.3</td>
<td>0.8</td>
<td>1.8</td>
<td>2</td>
<td>1.8</td>
<td>1.6</td>
</tr>
</tbody>
</table>

As might be expected, stories 9 -12, achieving Level 5b and above, used the highest proportion of adverbs whilst stories 1 and 2 used the lowest proportion. The effective use of adverbs to enhance descriptions in stories 9 -12, such as 'slowly sank' and 'floating aimlessly', were noted by the examiners. Story 3 revealed a surprisingly high proportion of adverbs. The examiners noted the beginnings of adventurous language, evidenced by adverbs such as 'eventually', although the majority were basic adverbs such as 'you've only
just got here' and 'happily ever after'. Further analysis of story 7 confirmed the lack of adverbs as indicated by the figures, but revealed a greater use of adjectives and adjectival expansion instead, such as 'deep, rough sounding voice', which had not been checked for by the computer.

5.2.3 Sentence construction

Two tests were performed to analyse sentence construction: checking for the use of basic sentence connectives and the writer's ability to handle different sentence constructions.

Connectives

As beginner writers show a heavy dependence upon the connective 'and' before progressing towards using other basic connectives - so, but, then and because (Harpin, 1976; Perera, 1984, Huxford et al., 1997), use of 'and' was investigated separately to the other connectives. The number of times basic connectives are used in a text would be expected to be proportionally fewer in the writing achieving the higher levels, than in the writing achieving the lower levels, as alternative connectives would be present. The number of 'and's in particular would be expected to be highest at the lowest levels. Table 5.7 records the total percentage of basic connectives to the total number of words for each story together with a breakdown of the percentage of 'and's and other basic connectives.

Table 5.7. Number of basic connective words used in each sample story as a percentage of total words

<table>
<thead>
<tr>
<th>Story number</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>N.C. Level</td>
<td>2c</td>
<td>3b</td>
<td>3a</td>
<td>4c</td>
<td>4b</td>
<td>4a</td>
<td>4a</td>
<td>5c</td>
<td>5b</td>
<td>5a</td>
<td>5+</td>
<td>5+</td>
</tr>
<tr>
<td>% and</td>
<td>4.8</td>
<td>4.8</td>
<td>8.5</td>
<td>2.1</td>
<td>4.4</td>
<td>3.3</td>
<td>3.6</td>
<td>2</td>
<td>4.3</td>
<td>2.5</td>
<td>2</td>
<td>2.5</td>
</tr>
<tr>
<td>% basic connectives</td>
<td>0.9</td>
<td>0.7</td>
<td>2.4</td>
<td>2.9</td>
<td>1.9</td>
<td>2.5</td>
<td>2.6</td>
<td>2</td>
<td>3</td>
<td>0.9</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>5.7</td>
<td>5.5</td>
<td>10.9</td>
<td>8.3</td>
<td>6.3</td>
<td>5.8</td>
<td>6.2</td>
<td>4</td>
<td>7.3</td>
<td>3.4</td>
<td>4</td>
<td>3.5</td>
</tr>
</tbody>
</table>

Broadly, the stories achieving the lower levels showed a dependence on basic connectives, whilst the stories achieving the higher levels revealed less of a dependence. Stories 1 and 2 contained a high percentage of 'and's, also commented on by the examiners, but few common connectives, indicating that these writers had not progressed from the simplest of sentence constructions. Whilst the writing contained in story 3 revealed an over dependence upon the connective 'and', a high percentage of other basic connectives is also evident, indicating that the writer, although immature, was more advanced than the writers of stories 1 and 2. Stories 8, 10, 11 and 12 displayed a lower dependence on basic connectives, as
might be expected in writing achieving a high level. Stories 7 and 9 displayed a surprisingly high level of dependence upon basic connectives, indicating a weakness in otherwise effective writing.

**Varying sentence construction**

It was anticipated that immature writers would frequently start sentences in a similar way, but that mature writers would find alternative ways to vary the start of a sentence. A test aiming to check for the writer’s ability to handle different sentence constructions, particularly varying the usual starting words for sentences, was devised. It assumed that sentences starting with pronouns (*He, She, His, Her, They, We, I*), or the definite article, are fairly straightforward constructions and likely to be used by immature writers (Perera, 1984, p.241). The proportion of sentences starting with a pronoun or the definite article was therefore checked for in each story, on the assumption that these would be proportionally higher in the stories achieving the lower levels and the results are presented in Table 5.8.

<table>
<thead>
<tr>
<th>Story number</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>N.C. Level</td>
<td>2c</td>
<td>3b</td>
<td>3a</td>
<td>4c</td>
<td>4b</td>
<td>4a</td>
<td>4a</td>
<td>5c</td>
<td>5b</td>
<td>5a</td>
<td>5+</td>
<td>5+</td>
</tr>
<tr>
<td>SSS</td>
<td>0</td>
<td>66.7</td>
<td>0</td>
<td>34.6</td>
<td>50</td>
<td>31</td>
<td>57.1</td>
<td>54.5</td>
<td>34.8</td>
<td>37.2</td>
<td>33.3</td>
<td>41.5</td>
</tr>
</tbody>
</table>

The results showed that stories 1 and 3 did not use any simple sentence starters. However, story 1 contained only three 'sentences'! Closer inspection of story 3 revealed other simple sentence starters, not detected by the test, such as 'so' and 'then', had been used frequently. Stories 2, 7 and 8 showed a heavy dependence on pronouns as a means of starting a new sentence. As stories 7 and 8 achieved a high level, the unusually high percentage of pronouns used at the start of a sentence, indicated a weakness in the sentence construction of these particular writers. The lower percentage of simple sentence starters recorded for stories 6, 10 and 11 accurately reflected a more varied style, but the low score for story 6 was misleading. The writer had included a high proportion of dialogue; the story was effectively a play script rather than narrative writing, which commands a different writing style.
5.2.4 Punctuation

Full stops

An analysis of average sentence length in words was performed (Table 5.9) in the expectation that it would reveal few instances of insufficient full stops and that these would occur generally at the lower levels.

Table 5.9 Mean sentence length in words for each sample story

<table>
<thead>
<tr>
<th>Story number</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>N.C. Level</td>
<td>2c</td>
<td>3b</td>
<td>3a</td>
<td>4c</td>
<td>4b</td>
<td>4a</td>
<td>4a</td>
<td>5c</td>
<td>5b</td>
<td>5a</td>
<td>5+</td>
<td>5+</td>
</tr>
<tr>
<td>Mean sentence length</td>
<td>76</td>
<td>19.3</td>
<td>22.4</td>
<td>14.6</td>
<td>15.8</td>
<td>12.6</td>
<td>13.8</td>
<td>18.2</td>
<td>17.1</td>
<td>10.4</td>
<td>9.2</td>
<td>12.8</td>
</tr>
</tbody>
</table>

The examiners' comments about story 1 concerning a complete lack of punctuation is supported by the analysis of sentence length. Clearly, an average sentence length of 76 words has a frequent lack of full stops! The average sentence lengths for stories 2, 3 and 8 are also high. The figures correspond to the examiners' verdict that not all the sentences had been correctly demarcated in these stories. Further analysis of the figures in conjunction with the examiners' comments revealed that the mean sentence length gives more information about sentence construction than at first appears. The low figures for stories 6, 10 and 11 appear to show a dependence on simple sentence structure and a lack of variation in sentence length. This was commented upon as a weakness in stories 6 and 11, although the 'short punchy' and 'compact descriptive' sentences in story 10 were an apparent strength. It would seem that an average sentence length of between approximately 12 and 16 words indicates a wide variation in individual sentence length - suggesting that short and long sentences, and simple and complex constructions have been deployed.

Commas

As a sign of more advanced writing skills, is the presence of complex sentences and an understanding of the ways commas should be used to punctuate clauses within complex sentences (Perera, 1984, p. 248; Crystal, 1995, p. 278; Wilde, 1996)., mature writers would be expected to make a greater use of commas to mark such grammatical boundaries than immature writers. A comparison was therefore made of the number of commas (excluding commas used in lists or numbers) in relation to the average sentence length which is recorded in Table 5.10.
Table 5.10 Mean sentence length divided by number of commas for each sample story

<table>
<thead>
<tr>
<th>Story number</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>N.C. Level</td>
<td>2c</td>
<td>3b</td>
<td>3a</td>
<td>4c</td>
<td>4b</td>
<td>4a</td>
<td>4a</td>
<td>5c</td>
<td>5b</td>
<td>5a</td>
<td>5+</td>
<td>5+</td>
</tr>
<tr>
<td>commas</td>
<td>∞</td>
<td>4.8</td>
<td>11.2</td>
<td>3.7</td>
<td>0.66</td>
<td>1.1</td>
<td>1.1</td>
<td>1.3</td>
<td>0.3</td>
<td>0.2</td>
<td>0.4</td>
<td></td>
</tr>
</tbody>
</table>

The method of dividing the mean sentence length by the number of commas was particularly useful for discriminating between the middle and higher levels, although again, deviations from expected scores indicated either a relative strength, or weakness in punctuation for a particular writer. Smaller numbers indicate a more frequent and secure use of commas associated with the higher levels of achievement. Thus, the stories achieving Level 2, 3b, 3a and 4c had a high figure ranging from 11.2 to infinity; the stories achieving Level 4a, 5c and 5b had a figure around the number 1, whilst the stories achieving 5a and 5+ had a figure smaller than 1. In the first three stories, few commas were used to demarcate clauses.

5.2.5 Additional tests

Three additional tests were performed attempting to provide a more detailed analysis of vocabulary and sentence construction. These tests did not supply useful additional information. Nevertheless, they are reported here.

Vocabulary

The test for sophisticated vocabulary which checked for the percentage of words greater than 5 letters used in a story (Section 5.2.2.) was repeated for words greater than 6, 7 and 8 letters (Table 5.11) but yielded no further information.

Table 5.11. Percentage of words greater than 6, 7 and 8 letters

<table>
<thead>
<tr>
<th>Story</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level</td>
<td>2c</td>
<td>3b</td>
<td>3a</td>
<td>4c</td>
<td>4b</td>
<td>4a</td>
<td>4a</td>
<td>5c</td>
<td>5b</td>
<td>5a</td>
<td>5+</td>
<td>5+</td>
</tr>
<tr>
<td>% of words &gt; 6 letters</td>
<td>5.7</td>
<td>9.7</td>
<td>11.3</td>
<td>9.2</td>
<td>10.8</td>
<td>10.2</td>
<td>6.7</td>
<td>11</td>
<td>9.7</td>
<td>16</td>
<td>12.2</td>
<td>8.4</td>
</tr>
<tr>
<td>% of words &gt; 7 letters</td>
<td>2.2</td>
<td>4.5</td>
<td>7.7</td>
<td>4.4</td>
<td>4.7</td>
<td>6.6</td>
<td>4.1</td>
<td>5.5</td>
<td>4.3</td>
<td>10.3</td>
<td>6.9</td>
<td>4.5</td>
</tr>
<tr>
<td>% of words &gt; 8 letters</td>
<td>1.3</td>
<td>1.7</td>
<td>4</td>
<td>2.4</td>
<td>1.9</td>
<td>5.2</td>
<td>0.5</td>
<td>2.3</td>
<td>1.5</td>
<td>6.6</td>
<td>3.9</td>
<td>2.4</td>
</tr>
</tbody>
</table>
The percentage of words greater than five letters gave sufficient information about the sophistication of vocabulary. The percentage of other longer words simply confirmed the trend.

The mean word length (in letters) including the standard deviation was also examined for the potential use in distinguishing differences of vocabulary choice at the different attainment levels (Table 5.12). These measures were found to have no variation between the different stories.

Table 5.12 Mean number of letters per word and standard deviation

<table>
<thead>
<tr>
<th>Story</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>N.C. Level</td>
<td>2c</td>
<td>3b</td>
<td>3a</td>
<td>4c</td>
<td>4b</td>
<td>4a</td>
<td>4a</td>
<td>5c</td>
<td>5b</td>
<td>5a</td>
<td>5+</td>
<td>5+</td>
</tr>
<tr>
<td>Word length</td>
<td>3.5</td>
<td>3.7</td>
<td>4</td>
<td>3.9</td>
<td>3.6</td>
<td>3.8</td>
<td>3.6</td>
<td>4.1</td>
<td>3.8</td>
<td>4.1</td>
<td>3.9</td>
<td>3.8</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>2.06</td>
<td>1.83</td>
<td>1.7</td>
<td>1.82</td>
<td>1.83</td>
<td>1.74</td>
<td>1.8</td>
<td>2.03</td>
<td>1.75</td>
<td>2.53</td>
<td>1.94</td>
<td>1.96</td>
</tr>
</tbody>
</table>

Sentence length

The length of each sentence written in a story was recorded and categorised according to its length because it was assumed that a more detailed analysis of sentence length would give a clearer picture of the variety of sentence constructions used in each story. Percentages of sentences containing less than 5 words, between 6-11 words, between 12-17 words, between 18-23 words, between 24-29 words and over 30 words long were recorded. The results are presented in Table 5.13.

Table 5.13 Percentage of sentences written at different lengths

<table>
<thead>
<tr>
<th>Story</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>N.C. Level</td>
<td>2c</td>
<td>3b</td>
<td>3a</td>
<td>4c</td>
<td>4b</td>
<td>4a</td>
<td>4a</td>
<td>5c</td>
<td>5b</td>
<td>5a</td>
<td>5+</td>
<td>5+</td>
</tr>
<tr>
<td>Below 5 words</td>
<td>0</td>
<td>6.7</td>
<td>9.1</td>
<td>11.5</td>
<td>10</td>
<td>20</td>
<td>25</td>
<td>13.6</td>
<td>0</td>
<td>54.3</td>
<td>30.3</td>
<td>21.5</td>
</tr>
<tr>
<td>6-11 words</td>
<td>0</td>
<td>26.7</td>
<td>0</td>
<td>23.1</td>
<td>25</td>
<td>36.7</td>
<td>28.6</td>
<td>22.7</td>
<td>39.1</td>
<td>19.6</td>
<td>39.4</td>
<td>33.8</td>
</tr>
<tr>
<td>12-17 words</td>
<td>0</td>
<td>6.7</td>
<td>27.3</td>
<td>42.3</td>
<td>30</td>
<td>16.7</td>
<td>17.9</td>
<td>22.7</td>
<td>30.4</td>
<td>10.9</td>
<td>22.7</td>
<td>24.6</td>
</tr>
<tr>
<td>18-23 words</td>
<td>0</td>
<td>26.7</td>
<td>9.1</td>
<td>11.5</td>
<td>20</td>
<td>16.7</td>
<td>7.1</td>
<td>13.6</td>
<td>13</td>
<td>6.5</td>
<td>4.5</td>
<td>9.2</td>
</tr>
<tr>
<td>24-29 words</td>
<td>0</td>
<td>13.3</td>
<td>27.3</td>
<td>3.8</td>
<td>10</td>
<td>6.7</td>
<td>7.1</td>
<td>13.6</td>
<td>4.3</td>
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<td>3</td>
<td>4.6</td>
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<tr>
<td>30 words</td>
<td>100</td>
<td>20</td>
<td>27.3</td>
<td>7.7</td>
<td>5</td>
<td>3.3</td>
<td>14.3</td>
<td>13.6</td>
<td>13</td>
<td>6.5</td>
<td>0</td>
<td>6.2</td>
</tr>
</tbody>
</table>
The results simply confirmed the findings of the test for mean sentence length (Table 5.9). All of the sentences in story 1 were overly long due to an insufficient number of full stops. Similarly, stories 2 and 3 had a high percentage of sentences longer than 30 words indicating that these were incorrectly demarcated. Stories 10 and 11 contained a high percentage of short simple sentences as approximately 70% of the sentences in both stories were shorter than 12 words. Whilst the breakdown of sentence lengths was interesting, it did not reveal useful additional information about variation in sentence structures.

5.3 Discussion

It was not the intention of the study to carry out a complete grammatical analysis, but to investigate some indicators that provide evidence of differences in maturity in children's writing. A complete linguistic analysis of children’s writing by the computer has not been undertaken. Absent, for example, is information about the kinds of subordinate clauses used by the children in their writing and the use made of adjectives and adjectival expansion etc. to achieve particular effects. However, the ten criteria which were selected for investigation, showed evidence as to their value as measures of the strengths, and weaknesses, in the writing of individual children. The results indicate that the analysis software can identify key differences between mature and immature writing with regard to grammar and style. Story length appeared to be the best indicator of attainment, although, by itself, this feature would be an inadequate measure. Investigating the percentage of the connective 'and' present in the writing samples successfully highlighted immature writing. By detecting the use of the connective 'and' separately to other basic connectives, it is possible to identify more clearly the stage a writer is at: from complete beginner to an advanced writer. Harpin's TIR method proved a reasonable indicator of vocabulary resources, although analysing the rate of drop in the TIR, after the first 100 words, did not, as hypothesised by Harpin, contribute to the task of differentiating between ability levels. The test identifying simple sentence starters would benefit from further refinements. It may prove beneficial to investigate other sentence starters in addition to pronouns and the definite article, such as the basic connectives 'so' and 'then'. Counting sentence lengths in words was reasonably successful at indicating both the insecure and secure use of full stops, characteristic of immature and mature writers respectively. In addition, the test indicated the range of sentence constructions evident in a text. However, the most useful test for discriminating the level of maturity in a writing sample was the mean sentence length to comma ratio, indicating the presence of clauses. A writer who is able to correctly punctuate subordinated and embedded clauses contained within complex sentences, is clearly a mature writer.
A computer analysis of samples of writing can thus reveal the level of grammatical maturity the child has reached. Mastery of most grammatical structures is evidence of mature writing - pupils achieving the higher National Curriculum levels are expected to demonstrate a varied and sophisticated vocabulary, a wide range of sentence constructions and accurate punctuation. However, whilst a statistical analysis of children's written grammar is useful, assistance with interpreting the results, in order to understand their significance, would also be helpful. Thus, rather than simply state that the average number of words per sentence is 15 for example, or that basic connectives account for 4.5% of all words used in a text, it would be beneficial to include information stating whether these are desirable features or not. Furthermore, when comparing scores across stories written by the same child, it would be useful to be able to see at a glance whether a higher or lower score indicated an improvement - for example a higher percentage of different words and words longer than five letters would indicate that a child has improved the sophistication and variety of words s/he has used, whilst a lower percentage of simple sentence starters and fewer words per sentence would indicate improved sentence construction and accuracy with full stops.

5.4 Determining poor, fair and good assessment boundaries

Since the ten criteria showed evidence of their value as measures of strengths and weaknesses evident in writing, it was decided to use the information to create a web based assessment tool for grammar in order to facilitate comparisons between stories written by children at Key Stage 2, with the example stories. This would be of benefit when comparing stories written with and without HARRY. The tool would supply and interpret the statistical information in order to make it easier to see whether a change in a particular score indicated better or worse writing. To provide a helpful interpretation, account was taken of the grammar and style features expected for each of the National Curriculum levels associated with the Key Stage, as indicated in the story assessments presented in Section 1.2.3 and summarised in Table 2.1 under the headings 'punctuation' and 'style'. The levels are based upon the usual pattern of children's writing development, outlined in Section 2.4.

A summary of the grammar and style competencies associated with Key Stage 2 is presented again here, organised into three grades approximating to the National Curriculum levels: poor (below the national target level), fair (around the national target level) and good (above the national target level).

**Poor writers use:**

- non-specific vocabulary like: got, thing etc., including basic adjectives like: big, nice etc., and verbs like got, went etc;
• many very simple connectives: and, so, then, and some simple connectives like: but, also, because;
• basic sentence constructions - simple sentences, often started with a pronoun or the definite article and compound sentences linked with and or but; and
• little punctuation - few sentences are demarcated correctly with full stops.

Fair writers use:
• some well chosen vocabulary, including adjectives and verbs;
• a greater range of connectives like: if, when, rather, than, although, however, as;
• a mixture of sentence constructions, including some complex sentences, some of which are demarcated with commas; and
• some punctuation - most sentences are accurately demarcated with full stops, including question and exclamation marks.

Good writers use:
• varied and sophisticated vocabulary, including varied connectives, varied verbs (such as clambered and plodded) and adverbs to give shades of meaning;
• a mixture of simple, complex and compound sentence constructions - long descriptive sentences are interspersed with short simple and minor sentences for effect;
• varied sentence structure with deliberate alteration of word order for effect; and
• virtually wholly correct punctuation, including commas to demarcate clauses in complex sentences.

It was the intention to provide information indicating whether a particular statistic is poor, fair, or good, based upon the results of the sample stories. Using the data gained from analysing the twelve sample stories, cut-off points for each of the categories - poor, fair and good - were calculated. The stories were awarded a good, fair or poor rating for each feature, based on the calculated value. The scores and ratings for each of the sample stories are summarised in Table 5.14. Although the computer performs 10 different checks on a text, these 10 checks are translated into 12 scores. One reason for this is that it was felt a total of the three scores for simple vocabulary (basic verbs, common connectives and the most basic connective 'and') would give a useful overall picture of the extent or limit of a child's vocabulary resources, whilst the breakdown would reveal a particular weakness with vocabulary more clearly. In addition, the test for average number of words per sentence had been found to indicate two different features: accuracy with punctuation, and variation in sentence length and structure.

As the stories are representative of the range of National Curriculum levels, it was expected that the categories would contain a similar number of stories. Therefore, the cut-off points for each of the categories poor, fair and good were adjusted so that a reasonably equal number of stories were included within each category. The spread of assessments per category is presented in Table 5.15. The cut-off points for each of the assessment categories poor, fair and good are presented in Table 5.16. CHECK TEXT, a utility tool for indicating strengths and weaknesses in children's written grammar and style was created based on these results. Details concerning this tool are presented in Section 5.5.
Table 5.14 Summary of statistics and interpretations calculated for sample stories

<table>
<thead>
<tr>
<th>Story number</th>
<th>Statistics/Interpretations</th>
<th>No. of words</th>
<th>TTR/ Variety of words</th>
<th>Long words</th>
<th>Adverbs</th>
<th>ands</th>
<th>Basic connectives</th>
<th>Basic verbs</th>
<th>Basic words</th>
<th>SSS</th>
<th>Use of full stops</th>
<th>Sentence length</th>
<th>Sentence length to commas</th>
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<td>54</td>
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<td>Poor</td>
<td>Poor</td>
<td>Poor</td>
<td>Poor</td>
<td>Good</td>
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<td>19</td>
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<td>Poor</td>
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<td>Good</td>
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<td>Fair</td>
<td>Good</td>
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### Table 5.15 Spread of assessments per category

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<tr>
<th>CHECK TEXT feature</th>
<th>Poor</th>
<th>Fair</th>
<th>Good</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of words</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Variety</td>
<td>3</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Words &gt; 5 letters</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Adverbs</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Ands</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Basic connectives</td>
<td>5</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Common verbs</td>
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<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Common words</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Simple Sentence Starters</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Use of full stops</td>
<td>4</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Sentence length</td>
<td>5</td>
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<td>5</td>
</tr>
<tr>
<td>Sentence length to commas</td>
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</tr>
</tbody>
</table>

### Table 5.16 Assessment boundaries

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<th>CHECK TEXT feature</th>
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<th>Fair</th>
<th>Good</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of words</td>
<td>Less than 290 words</td>
<td>290-390 words</td>
<td>More than 390 words</td>
</tr>
<tr>
<td>Variety of words in first 100</td>
<td>Less than 61%</td>
<td>61%-67%</td>
<td>More than 67%</td>
</tr>
<tr>
<td>Ands used to total words</td>
<td>More than 4.4%</td>
<td>2.6%-4.4%</td>
<td>Less than 2.6%</td>
</tr>
<tr>
<td>Common connectives</td>
<td>More than 2%</td>
<td>1.5%-2%</td>
<td>Less than 1.5%</td>
</tr>
<tr>
<td>Simple Sentence Starters</td>
<td>More than 50%</td>
<td>37%-50%</td>
<td>Less than 37%</td>
</tr>
<tr>
<td>Average sentence length</td>
<td>More than 16 words</td>
<td>8-12 words</td>
<td>12-16 words</td>
</tr>
<tr>
<td>Number of words over 5 letters</td>
<td>Less than 13.5%</td>
<td>13.5%-17%</td>
<td>More than 17%</td>
</tr>
<tr>
<td>Common verbs used to total words</td>
<td>More than 5.5%</td>
<td>4.2%-5.5%</td>
<td>Less than 4.2%</td>
</tr>
<tr>
<td>Adverbs used to total words</td>
<td>Less than 0.7%</td>
<td>0.7%-1.5%</td>
<td>More than 1.5%</td>
</tr>
<tr>
<td>Common words to total words</td>
<td>More than 11.5%</td>
<td>8.5%-11.5%</td>
<td>Less than 8.5%</td>
</tr>
<tr>
<td>Mean words per sentence (use of full stops)</td>
<td>More than 18 words</td>
<td>14-18 words</td>
<td>8-14 words</td>
</tr>
<tr>
<td>Sentence length to commas ratio</td>
<td>More than 2</td>
<td>1-2</td>
<td>Less than 1</td>
</tr>
</tbody>
</table>
5.5 The CHECK TEXT utility tool

5.5.1 The interface

The first screen (Figure 5.2) asks the user to copy and paste in a text.

![CHECK TEXT interface](image)

Figure 5.2. CHECK TEXT - the second screen

The second screen supplies statistical information about the whole text, sentence constructions, vocabulary and punctuation. An example of the information provided is presented in Figure 5.3.

![CHECK TEXT statistical information](image)

Figure 5.3 CHECK TEXT statistical information
Explanations of the significance of the statistics appear in pop-up windows accessed through hyperlinks on the screen. An example of a pop-up explanation window is provided in Figure 5.4.

![Analysis of the story](image)

Figure 5.4. Pop-up explanation window

The third screen identifies clearly whether each numerical score is a poor, fair or good result, on the basis of the information supplied in the pop-up windows on the previous screen. The user is therefore able to see at a glance the strengths and weaknesses evident in the writing. An example of a report is presented in Figure 5.5.

![Grammar Strengths and Weaknesses](image)

Figure 5.5 Screen design: The Report
The report presented in Figure 5.5 indicates that this child has generally written extremely well. The story is detailed, sentences are accurately demarcated with full stops and clauses with commas, and vocabulary is sophisticated and varied. The writing is slightly weakened however by the frequent use of basic connectives and fairly limited sentence constructions. This writer could be encouraged to make more use of a variety of connectives and sentence constructions and to vary sentence length more, so that longer descriptive sentences are interspersed with shorter sentences to make the writing even more interesting.

5.6.2 CHECK TEXT assessment boundaries

A summary of the National Curriculum assessment criteria for each feature of grammar and style - vocabulary, sentence constructions and punctuation is presented in this section, followed by the information supplied by CHECK TEXT for the same features, presented in the pop-up windows. By recording the information in this way, it is possible to compare directly National Curriculum criteria with the CHECK TEXT information designed to suggest levels of competence for each feature. The tool is thus designed to indicate grammar and style strengths and weaknesses evident within children's writing, and does not attempt to determine overall National Curriculum levels.

Vocabulary

National Curriculum criteria:

Poor (below Level 4): vocabulary is repetitive, unadventurous and non-specific (such as got and thing) including basic adjectives and verbs like: big, nice, got, went.

Fair (around Level 4): some well chosen vocabulary, including adjectives and verbs.

Good (above Level 4): varied and sophisticated vocabulary, including verbs (such as clambered and plodded) adjectives such as glistened, and adverbs to give shades of meaning.

Information supplied by CHECK TEXT:

Story length

A long story indicates that much detail has been included, whilst a short story lacks sufficient detail.

Poor – Less than 290 words – More detail is needed.

Fair – 290-390 words – The story has been written in sufficient detail.

Good – More than 390 words – This is a detailed story.
Variety of words
A low % indicates frequent repetition.
**Poor** – Less than 61% indicates frequent repetition of words.
**Fair** - 61% - 67% indicates a reasonable variety of words.
**Good** - More than 67% indicates a good variety of words.

Word length (% of words longer than 5 letters).
A high % indicates an adventurous vocabulary.
**Poor** - Less than 13.5% indicates simple vocabulary.
**Fair** - 13.5% - 17% indicates some adventurous vocabulary has been used.
**Good** - More than 17% indicates an adventurous vocabulary.

Common verbs (frequency of the verbs said, saw, went, was, were, got, get). 
A high % indicates limited verb choice. A more adventurous choice of verbs helps to make writing more lively and interesting for the reader.
**Poor** - Greater than 5.5% indicates a limited verb choice.
**Fair** - 4.2-5.5% indicates a simple verb choice.
**Good** - Less than 4.2% indicates a sophisticated verb choice.

Common words (verbs: said, saw, went, was, were, got, get + connectives and, so, but, then, because). A high % indicates a limited vocabulary.
**Poor** - Greater than 11.5% indicates limited vocabulary.
**Fair** - 8.5 - 11.5% indicates simple words have mostly been used.
**Good** - Less than 8.5% indicates a more sophisticated writing vocabulary.

Use of adverbs to ascribe shades of meaning. A high % indicates a more sophisticated vocabulary.
**Poor** - Less than 0.7%. More adverbs are needed.
**Fair** - 0.7 - 1.5% Some adverbs have been used.
**Good** - Greater than 1.5%. Many adverbs have been used.

Sentence constructions
National Curriculum criteria:
**Poor (below Level 4):** many very simple connectives (and, so, then) and some simple connectives (but, because) basic sentence constructions - simple sentences, often started with a pronoun or the definite article and compound sentences linked with and or but.
Fair (around Level 4): a greater range of connectives like: if, when, rather, than, although, however, as; a mixture of sentence constructions, including some complex sentences.

Good (above Level 4): a mixture of simple, complex and compound sentence constructions - long descriptive sentences are interspersed with short simple and minor sentences for effect; varied sentence structure with deliberate alteration of word order for effect.

Information supplied by CHECK TEXT:
The connective and
'And' is the most basic connective used by children. A more mature style is achieved by substituting alternative connectives for 'and', or replacing and with a comma or a full stop.
A high % of ands indicates immature sentence constructions.
Poor - Higher than 4.4% indicates a dependence on the connective and.
Fair - 2.6 - 4.4% indicates a frequent use of the connective and.
Good - Less than 2.6% indicates a range of sentence structures.

Basic connectives (then, so, but, because)
Use of these basic connectives indicates immature sentence constructions.
Poor - More than 2% indicates a dependence upon basic connectives.
Fair - 1.5 - 2% indicates frequent use of basic connectives.
Good - Less than 1.5% indicates a range of connectives and sentence constructions.

Average sentence length
Writing should contain a variety of sentence lengths. When writing a story, short simple sentences should be interspersed between longer more complex constructions. Short sentences can add suspense or impact. Long sentences can be used for description.
Poor - More than 16 words indicates insecure sentence constructions (some sentences may not be correctly demarcated with full stops).
Fair - 8 - 12 words indicates mostly short sentences. More long sentences are needed.
Good - 12 - 16 words indicates a good variety of sentence length.

Simple sentence starters (sentences starting with The, I, He, She, His, Her, They, We)
Sentences which begin with pronouns indicate a weakness in sentence construction - using the same basic way to start sentences. Variation can be achieved by starting a sentence with an adverb or a verb etc. A low % of simple sentence starters indicates a more varied writing style.
Poor - greater than 50% indicates that similar sentence constructions are being used.
Fair - 37 -50% indicates some variation in sentence construction is being attempted.
**Good** - Less than 37% indicates a more varied writing style.

**Punctuation**

**National Curriculum criteria:**

**Poor (below Level 4):** little punctuation - few sentences are demarcated correctly with full stops.

**Fair (around Level 4):** some punctuation - most sentences are accurately demarcated with full stops, including question and exclamation marks.

**Good (above Level 4):** virtually wholly correct punctuation, including commas to demarcate clauses in complex sentences.

**Information supplied by CHECK TEXT:**

**Full stops**

A high number of words in a sentence indicates a lack of full stops - sentences incorrectly demarcated.

**Poor** - Greater than 18 words indicates insufficient full stops.

**Fair** - 14 - 18 words indicates the writer is insecure in the use of full stops.

**Good** - 8 -14 words indicates a secure grasp of the use of full stops.

**Commas**

The use of commas to demarcate clauses is a sign of advanced writing skills. This is the ratio of average sentence length in words to the number of commas used (not including commas in lists). A high number of words to commas indicates a lack of commas. A low number of words to commas indicates mostly correct use of commas.

**Poor** - Higher than 2 indicates a weakness in the use of commas.

**Fair** - 1 - 2 indicates beginning to use commas.

**Good** - Less than 1 indicates mostly correct use of commas to demarcate clauses.

**5.6 Example story assessments**

The assessments produced by CHECK TEXT for two of the sample stories are discussed and compared to the examiners' comments for these stories, to demonstrate the tool's functionality.
Story 3 (Level 3)

<table>
<thead>
<tr>
<th>Feature</th>
<th>Score/report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of words</td>
<td>246</td>
</tr>
<tr>
<td>Variety of words in first 100</td>
<td>61%</td>
</tr>
<tr>
<td>Ands used to total words</td>
<td>8.5%</td>
</tr>
<tr>
<td>Common connectives</td>
<td>2.4%</td>
</tr>
<tr>
<td>Simple sentence starters</td>
<td>0%</td>
</tr>
<tr>
<td>Average sentence length in words</td>
<td>22.4</td>
</tr>
<tr>
<td>Number of words over 5 letters</td>
<td>12.2%</td>
</tr>
<tr>
<td>Common verbs used to total words</td>
<td>5.7%</td>
</tr>
<tr>
<td>Adverbs used to total words</td>
<td>1.6%</td>
</tr>
<tr>
<td>Common words to total words</td>
<td>16.7%</td>
</tr>
<tr>
<td>Mean words per sentence</td>
<td>22.4</td>
</tr>
<tr>
<td>Sentence to comma ratio</td>
<td>11.2</td>
</tr>
</tbody>
</table>

This writer displays a low level of maturity as the writing lacks detail (246 words) and demonstrates a general lack of variety of words (Variety = 61%), although some more sophisticated vocabulary in the form of adverbs (1.6%) is detected. Immature sentence constructions are evident, demonstrated by a high dependence upon basic connectives (2.4%), especially 'and' (8.5%), a high average of words per sentence (22.4) and a lack of commas demarcating clauses. An average sentence length of 22.4 words indicates an insecure use of full stops. This grammatical analysis by the computer generally supports the examiners' comments for this story: although the story contains mostly simple adjectives and adverbs, there is evidence of some adventurous vocabulary and some grammatically complex sentences. However, clauses are linked together with mostly simple connectives and only half the sentences are correctly punctuated with full stops.

Story 10 (Level 5)

<table>
<thead>
<tr>
<th>Feature</th>
<th>Score/report</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of words</td>
<td>446</td>
</tr>
<tr>
<td>Variety of words in first 100</td>
<td>73%</td>
</tr>
<tr>
<td>Ands used to total words</td>
<td>2.5%</td>
</tr>
</tbody>
</table>

138
This is a detailed story (446 words), containing a variety of sophisticated vocabulary (Variety = 73%, words > 5 letters = 21.3%, adverbs = 2%). The writer uses full stops accurately (mean sentence length = 10.1 words) and commas to demarcate clauses (ratio = 0.3). Although the high incidence of commas indicates the presence of complex sentence constructions, the writing lacks a variety of sentence lengths (average sentence length = 10.1 words). The low dependence upon basic connectives (0.9%), including 'and's (2.5%) is further evidence of mature sentence constructions. Again, the computer analysis supports the examiners' verdict that the story contains mostly correct punctuation, including commas to clarify meanings; varied vocabulary, including patterning, personification and metaphors and a wide variety of sentence structure, including short punchy sentences and compact descriptive sentences.

5.7 Qualitative assessment features

Writing cannot be assessed by levels of grammatical maturity alone. Whilst an analysis of particular grammar features can indicate why some texts succeed better than others - a task which can be fulfilled by a computer, it is essential that any assessment considers writing holistically as well. There is little point in a child's story containing mature patterns of sentence structure and varied and sophisticated vocabulary, if the writing is boring, lacks organisation and has little plot. Without a holistic assessment, the computer is merely making superficial judgements based on the surface features of a text.

It was the intention to assess all stories written by children involved in the school studies on holistic features as well as grammar and style - a task that would be fulfilled by the teacher-researcher. The question was which features to select and then how to comment upon them? Key features were indicated by the assessments of the stories presented in Section
1.2.3. Criteria for each of the National Curriculum levels associated with the Key Stage were summarised in Table 2.1, where the holistic features are referred to as 'purpose and organisation'. From this information, it was possible to determine strengths and weaknesses in children's story writing, related to structure, character development and use of literary techniques. As with the grammar and style assessments, three main grades of writing competency were distinguished, covering text organisation and literary effects, approximating to the National Curriculum levels: 'poor' (below Level 4), 'fair' (around Level 4) and 'good' (above Level 4). The information would be used to write descriptive, qualitative comparative assessments in the style of the assessments presented in Section 1.2.3. Briefly, the levels of competency identified for each of the three categories are:

**Story structure**

**Poor:** some basic elements of story structure, such as an opening, more than one character, one or more events, a weak ending (such as, The End!)

**Fair:** a clear beginning, middle and ending story structure with some paragraph divisions; events progress logically.

**Good:** a clear story structure with an opening device, a series of events, an unpredictable twist and a strong, satisfying ending, organised appropriately into paragraphs. The story is lively.

**Character development**

**Poor:** minimal character and setting descriptions, little dialogue.

**Fair:** some interaction between characters and characterisation evident through speech.

**Good:** settings and characters are described well and dialogue and description are interwoven with the action; there is a relationship between the characters and convincing dialogue.

**Use of literary devices**

**Poor:** basic story language, such as One day, Suddenly.

**Fair:** some literary techniques, for example an opening device (action, description or dialogue), and common similes (e.g. 'as quick as a flash').

**Good:** literary devices are evident such as alliteration, original similes and metaphors and pacing achieved through varying sentence types and structures.

HARRY was designed to directly assist children improve their story structure, characterisation and use of literary devices. Table 4.6 provided a detailed summary of how
HARRY's prompts target the 'purpose and organisation' element of the National Curriculum level descriptions. Table 5.17 below indicates the broad prompt categories that target each of the holistic categories identified above.

Table 5.17 The prompt categories that target each of the holistic writing categories

<table>
<thead>
<tr>
<th>Prompt category</th>
<th>Story structure</th>
<th>Character development</th>
<th>Literary devices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Setting</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Character</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Action</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Key</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Complication</td>
<td>•</td>
<td></td>
<td>•</td>
</tr>
<tr>
<td>Last</td>
<td>•</td>
<td></td>
<td>•</td>
</tr>
</tbody>
</table>

The stories written by each child would be subjected to a detailed comparison by the teacher-researcher, using the criteria identified in this section to draw out the similarities and differences. The descriptive analysis aimed to provide detailed answers to the following questions:

**Story structure**
- Writing arranged into appropriate paragraphs, each containing a theme?
- A clear plot which progresses logically?
- Effective opening and satisfactory ending?
- An unpredictable event or unexpected twist in the tale?

**Character development**
- Characters described with clear personalities?
- Dialogue used?

**Use of literary devices**
- Setting described?
- Evidence of patterning, similes, sentence structures to create particular effects etc?
- A mood, theme or moral for the story?
It was the intention to evaluate all the stories produced during the school study using detailed, descriptive, qualitative assessments of holistic features, in the style indicated in Section 1.2.3, and quantitative assessments provided by CHECK TEXT of grammar and style features, in the style indicated in Section 5.6.

5.8 Conclusions

A useful utility tool, based on a quantitative analysis of stories representative of the spread of writing ability associated with the end of Key Stage 2, was created. CHECK TEXT provides a systematic, objective analysis of twelve grammar and style features in children's writing, covering vocabulary, sentence construction and punctuation. The current CHECK TEXT prototype provides a sufficient basis upon which comparisons between examples of children's writing can be made. For a full evaluation of children's writing however, the quantitative analysis of grammar and style features needs to be supplemented by a qualitative analysis of holistic measures. It would be possible to develop the prototype assessment tool into a diagnostic tool for use by teachers. This would require further research, involving for example, an evaluation by teachers of the best way to present the available information and an analysis of a larger dataset. With a larger dataset, it would be possible to correlate the CHECK TEXT features and scores with a degree of statistical significance. The government has not yet made a larger dataset publicly available.
Chapter 6
SYSTEM EVALUATION - PART ONE

'I am more than happy to be involved. The children get a new and stimulating writing experience and it's a good use of ICT!'
Adrian Brown, class teacher and ICT co-ordinator

'I am sure that it will provide the basis for much further work, both with children who have underdeveloped writing ability and also with those who we consider to be gifted writers who would benefit from extension work'.
David Brown, Headteacher of a Loughborough Primary school

6.1 Introduction

A formative study, involving a small sample of children, was performed to assess the effects of the HARRY writing system upon children's writing performance and behaviour. This chapter demonstrates how all the stories written with HARRY's assistance were better than the control stories written by the same children on the same theme, without HARRY's assistance, and that the children adopted the revision process when assisted by HARRY. Stories written by a control group, who wrote two stories on the same theme without receiving assistance with either story apart from help with spelling provided by a spell-checker, were consistent or slightly worse in quality. Material drawn from this chapter has been presented in two papers accepted for publication by refereed journals (see Appendix C) - The International Journal of Human-Computer Studies (Holdich and Chung, 2003) and Computers and Education (Holdich, Chung and Holdich, 2004).

The study took place in a co-educational, state-funded primary school, in a small town close to Loughborough. Pupils attending the school are drawn mostly from a modern estate of privately owned houses. The school had been inspected by Ofsted a month before the study took place and had received a good report. Six children from a Year 4 class (8/9 year olds) were involved in the study, which took place in February and March. The children were selected randomly from those children who, with the consent of their parents, volunteered to take part in the project by using the HARRY story writing tool. Their teacher was asked to indicate the children's writing ability within the class (Table 6.1). The children each wrote two stories: a control story written with a cut-down version of HARRY and another story written with HARRY's assistance on the same theme. In addition, three children\(^1\) wrote two stories on the same theme, using the school's usual word processing package. These children did not receive assistance with either of the stories apart from assistance with spellings provided

\(^1\) These three children were the only pupils willing to write two stories for the 'writing project', using the school's usual word processing package rather than the HARRY story writing tool.
by the spell-checker. The purpose of having a control group was to assess the effects of writing a second story on the same theme, without receiving feedback regarding the first story or assistance with the second story, on children’s writing performance. This would help to determine whether improvements detected in the HARRY assisted stories could be attributed to HARRY or if they were simply the result of writing a second story on the same theme.

Each child involved in the study was asked to write two stories on the same topic, either: pirates, space, a woodland adventure or an enchanted journey. The first story, the control, was written without any assistance. This was followed by another story on the same theme, but written with the system. A similar variety of prompts was available for each of the story themes. The story themes chosen by the children involved in the study are identified in Table 6.1.

Table 6.1. Table to show the ability level of each child involved in the study and the story theme selected for stories written with and without HARRY’s assistance.

<table>
<thead>
<tr>
<th>Child’s name</th>
<th>Writing ability</th>
<th>Chosen HARRY story theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sophie</td>
<td>Average</td>
<td>Woodland adventure</td>
</tr>
<tr>
<td>James</td>
<td>Average</td>
<td>Enchanted journey</td>
</tr>
<tr>
<td>Stephanie</td>
<td>Good</td>
<td>Enchanted journey</td>
</tr>
<tr>
<td>Rachael</td>
<td>Good</td>
<td>Pirate</td>
</tr>
<tr>
<td>Lauren</td>
<td>Poor</td>
<td>Space</td>
</tr>
<tr>
<td>Tom</td>
<td>Average</td>
<td>Enchanted journey</td>
</tr>
<tr>
<td>Sarah</td>
<td>Good</td>
<td>N/A (Control group)</td>
</tr>
<tr>
<td>David</td>
<td>Average</td>
<td>N/A (Control group)</td>
</tr>
<tr>
<td>Laura</td>
<td>Good</td>
<td>N/A (Control group)</td>
</tr>
</tbody>
</table>

The control stories were written with a cut-down version of the system. The control HARRY had a similar screen design although few of the features available with HARRY. The control HARRY enabled the children to stop, then return to writing on another occasion with the ‘That’s it for now’ button, but did not present any prompts other than a suggestion to write a story on the chosen theme in the box provided. The whole story was typed in one box on the screen. Stories longer than the initial text box were made possible through the provision of scrolling. Once the child had completed the control story, the story was transferred to Microsoft Word, so that the child could correct his/her own spelling and technical errors.
The assisted stories were written with the full HARRY system. The 'help' buttons available with HARRY during the composing stage were demonstrated to each child individually whilst the child responded to the welcome message requiring the child to brainstorm ideas. The children were instructed to consult all of the 'help' buttons and the 'check' button for ideas when embarking on a new section, prior to writing, leaving open whichever help option they considered most useful. It was explained that they could, and should, consult the other help boxes whenever they wished. The forward and back arrows were demonstrated once the child had moved on to the start prompt with the 'what next?' button. How to respond to the editing prompts was explained to each child individually when the child moved onto the first section to be edited. When the story had been transferred to Microsoft Word, how to correct spelling and technical errors using the spell and grammar checkers was explained.

The stories were collected over five weeks. The children involved in the study worked mostly two at a time, sitting at adjacent computers. Each child was permitted by the school to use HARRY for two Literacy lessons (each lasting one hour) a week. However, the children were allowed as many lessons as they needed to complete each story. The children were observed as they wrote both stories. Field notes were recorded noting how the children approached the writing tasks and observable reactions they made in response to HARRY's prompts whilst they were writing. All the stories were assessed along two dimensions: organisation (including literary techniques) and grammar (including style), using a process similar to that used by examiners for the national curriculum tests at the end of Key Stage 2. The detailed assessment of each story involves the holistic measures and grammar and style features outlined in Chapter 5. The holistic measures discussed are: the opening, the mood or tone, the setting, characterisation, use of dialogue, story structure, unpredictable events, paragraphing, literary devices and the ending. The grammar analysis is based upon the scores and reports calculated by CHECK TEXT for punctuation, sentence construction and vocabulary, which are supplemented with examples of words, phrases and sentences where appropriate. CHECK TEXT scores are recorded for each stage of the HARRY assisted stories, after the stage had been completed. The three stages are: stage one (composing/revising), stage two (editing) and stage three (spelling and technical errors corrected).

The results of the evaluation are presented in this chapter. The similarities and differences between the pair of stories produced by each child in the control group are discussed first. Then the stories produced by the children who wrote a control and a HARRY assisted story
are presented. The control stories and the final drafts of the HARRY assisted stories are evaluated and compared in each case. The children's approach to the writing tasks is then discussed. The story evaluations consist of a descriptive analysis supported by CHECK TEXT statistics, of each story's strengths and weaknesses, divided into two sections - organisation (including literary techniques) and grammar (including style). National Curriculum levels ascribed to all the stories by the class teacher are reported. In addition, an evaluation of technical aspects of the system is made. All the stories are presented in Appendix B. Details of all the prompts delivered for the HARRY assisted stories and the responses made in both drafts (composing and editing) are included.

6.2 Control Group

6.2.1 Sarah

Sarah wrote two stories set in outer space (see Appendix B.3). Both stories are written in a similar entertaining style. They feature similar events - emergency messages requesting assistance in outer space are delivered to a computer screen. Both stories follow a logical beginning-middle-end structure. Paragraphing is used to group ideas together. The stories start in a similar 'matter of fact' way:

First story: I was in a bike shop, my mum and the person behind the counter were helping my little brother, Johnny choose a bike for his birthday.

Second story: Hello, my name is squeaky, I am a robot from Caneyned city on the planet Titon.

The stories similarly end with a succinct final comment:

Story one: ... Johnny wheeling out his bike with a grin on his face!

Story two: Never mind, I might get another chance another day!

Both stories are written in the first person. Some dialogue is used in the first story, but not the second. Neither story makes use of literary devices such as similes and metaphors, nor provides setting or character descriptions.

A summary of whole text strengths and weaknesses in Sarah's stories is provided in Table 6.2. Each feature has been awarded a 'poor', 'fair' or 'good' report using the criteria identified in Chapter 5, Section 5.7. The 'good' reports in both stories are shaded. The worse report in the second story is highlighted in yellow.

Table 6.2 Summary assessment of the whole text features for Sarah's stories

<table>
<thead>
<tr>
<th>Theme</th>
<th>Feature</th>
<th>First story</th>
<th>Second story</th>
</tr>
</thead>
<tbody>
<tr>
<td>Story</td>
<td>Paragraphs</td>
<td>Good</td>
<td>Good</td>
</tr>
<tr>
<td>structure</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The CHECK TEXT scores for both stories are presented in Table 6.3. The 'good' reports are shaded. The reports which were better for the second story are highlighted in blue and worse reports in yellow.

### Table 6.3 CHECK TEXT scores for Sarah’s stories

<table>
<thead>
<tr>
<th>Feature</th>
<th>1&lt;sup&gt;st&lt;/sup&gt; story</th>
<th>2&lt;sup&gt;nd&lt;/sup&gt; story</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of words</td>
<td>213</td>
<td>Poor</td>
</tr>
<tr>
<td>Variety of words in first 100</td>
<td>60%</td>
<td>Poor</td>
</tr>
<tr>
<td>Ands used to total words</td>
<td>1.9%</td>
<td>Good</td>
</tr>
<tr>
<td>Common connectives</td>
<td>0.9%</td>
<td>Good</td>
</tr>
<tr>
<td>Simple sentence starters</td>
<td>52.6%</td>
<td>Poor</td>
</tr>
<tr>
<td>Average sentence length in words</td>
<td>11.2</td>
<td>Fair</td>
</tr>
<tr>
<td>Number of words over 5 letters</td>
<td>23.9%</td>
<td>Good</td>
</tr>
<tr>
<td>Common verbs used to total words</td>
<td>4.7%</td>
<td>Fair</td>
</tr>
<tr>
<td>Adverbs used to total words</td>
<td>0.9%</td>
<td>Fair</td>
</tr>
<tr>
<td>Common words to total words</td>
<td>7.5%</td>
<td>Good</td>
</tr>
<tr>
<td>Mean words per sentence</td>
<td>11.2</td>
<td>Good</td>
</tr>
<tr>
<td>Sentence to comma ratio</td>
<td>0.7</td>
<td>Good</td>
</tr>
</tbody>
</table>

CHECK TEXT recorded similar scores for each story for three features: mean sentence length (first story = 11.2 words, second story = 12.1 words) common verbs (first story = 4.7%, second story = 4.4%) and sentence to comma ratio (first story = 0.7, second story = 0.9). The second story achieved better scores for two features: variety of words (first story = 60%,
second story = 67%) and simple sentence starters (first story = 52.6%, second story = 40%). Worse scores were recorded for the second story for five features: use of the connective and (first story = 1.9%, second story = 3.3%), common connectives (first story = 0.9%, second story = 1.7%), adverbs (first story = 0.9%, second story = 0%), total number of words (first story = 213 words, second story = 181 words) and common words (first story = 7.5%, second story = 9.4%).

There is little difference in quality between the organisation of Sarah's stories. Though structured and entertaining, both stories lack detail and literary techniques. Grammar and style is also mostly consistent. Her grammar weaknesses in both stories are: lack of variety of words, lack of adverbs and frequently starting her sentences in a similar way. Sarah's strength in both stories is with sentence construction - she writes using a mixture of complex and compound sentences which she punctuates accurately. Sarah achieved slightly worse scores for use of common connectives, including the connective 'and'.

6.2.2 David

David wrote two stories featuring a pet mouse (see B.3). Both stories are written in the same style and feature a similar series of events: a cage containing a mouse is brought home and the mouse has an adventure, involving outwitting a cat. The story is written from the mouse's point of view in both cases. The personality of the cat character is described in a similar way in both stories:

First story: ... he ran backwards stupid thing he should have caught us we weren't scared of him.
Second story: The cat walked forward turned tail and ran for his life which was stupid really because he should have caught us not run away.

Both stories use dialogue to reveal aspects of the character's personalities:

First story: "Oh well, I'm stuck with her" mum said.
Second story: "...you can't catch us we're far too fast and your too slow!"

Neither story uses paragraphs, literary devices or describes the setting.

A summary of whole text strengths and weaknesses in David's stories is provided in Table 6.4. Each feature has been awarded a 'poor', 'fair' or 'good' report using the criteria identified in Chapter 5, Section 5.7.
Table 6.4 Summary assessment of the whole text features for David's stories

<table>
<thead>
<tr>
<th>Theme</th>
<th>Feature</th>
<th>First story</th>
<th>Second story</th>
</tr>
</thead>
<tbody>
<tr>
<td>Story structure</td>
<td>Paragraphs</td>
<td>Poor</td>
<td>Poor</td>
</tr>
<tr>
<td></td>
<td>Plot</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td></td>
<td>Opening</td>
<td>Poor</td>
<td>Poor</td>
</tr>
<tr>
<td></td>
<td>Ending</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td></td>
<td>Complication</td>
<td>Poor</td>
<td>Poor</td>
</tr>
<tr>
<td></td>
<td>Theme</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td>Character development</td>
<td>Personalities</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td></td>
<td>Dialogue</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td>Use of literary devices</td>
<td>Setting</td>
<td>Poor</td>
<td>Poor</td>
</tr>
<tr>
<td></td>
<td>Effects</td>
<td>Poor</td>
<td>Poor</td>
</tr>
</tbody>
</table>

The CHECK TEXT scores for both stories are presented in Table 6.5. The 'good' reports are shaded. The better reports in the second story are also highlighted in blue and the worse reports in yellow.

Table 6.5 CHECK TEXT scores for David's stories

<table>
<thead>
<tr>
<th>Feature</th>
<th>1st story</th>
<th>2nd story</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of words</td>
<td>Score/report</td>
<td>Score/report</td>
</tr>
<tr>
<td>Variety of words in first 100</td>
<td>70% Good</td>
<td>63% Fair</td>
</tr>
<tr>
<td>Ands used to total words</td>
<td>5.5% Poor</td>
<td>6.7% Poor</td>
</tr>
<tr>
<td>Common connectives</td>
<td>3.3% Poor</td>
<td>2.7% Poor</td>
</tr>
<tr>
<td>Simple sentence starters</td>
<td>50% Fair</td>
<td>33.3% Good</td>
</tr>
<tr>
<td>Average sentence length in words</td>
<td>22.8 Poor</td>
<td>24.8 Poor</td>
</tr>
<tr>
<td>Number of words over 5 letters</td>
<td>14.3% Fair</td>
<td>11.8% Poor</td>
</tr>
<tr>
<td>Common verbs used to total words</td>
<td>3.7% Good</td>
<td>4.7% Fair</td>
</tr>
<tr>
<td>Adverbs used to total words</td>
<td>0.7% Fair</td>
<td>1.3% Fair</td>
</tr>
<tr>
<td>Common words to total words</td>
<td>12.5% Poor</td>
<td>14.1% Poor</td>
</tr>
<tr>
<td>Mean words per sentence</td>
<td>22.8 Poor</td>
<td>24.8 Poor</td>
</tr>
<tr>
<td>Sentence to comma ratio</td>
<td>$\infty$ Poor</td>
<td>$\infty$ Poor</td>
</tr>
</tbody>
</table>
CHECK TEXT recorded similar scores for David's first and second story in four features: common connectives (first story = 3.3%, second story = 2.7%), adverbs (first story = 0.7%, second story = 1.3%), average sentence length (first story = 22.8 words, second story = 24.8 words) and sentence to comma ratio (first story = ∞, second story = ∞). The second story scored considerably better for simple sentence starters (first story = 50%, second story = 33.3%), and slightly better for total number of words (first story = 273 words, second story = 297 words). The second story scored worse for five features: variety of words (first story = 70%, second story = 63%), the connective and (first story = 5.5%, second story = 6.7%), Words > 5 letters (first story = 14.3%, second story = 11.8%), common verbs (first story = 3.7%, second story = 4.7%) and common words (first story = 12.5%, second story = 14.1%).

There is little difference in the organisation aspect of both stories. The story content is similar, with neither story organised into paragraphs. Character's personalities are revealed through dialogue in both cases, but no other literary techniques are evident. Grammar and style was also mostly consistent in quality. CHECK TEXT reveals a persistent weakness in punctuation (full stops and commas) and a dependence upon basic sentence connectives in both stories. Some features are slightly worse in the second story: vocabulary is less varied and more common verbs are apparent.

6.2.3 Laura

Laura wrote two stories set in space (see B.3). Both of Laura's stories are long, containing an organised series of interesting, imaginative and unpredictable (although different) events. The stories progress logically. Ideas are grouped together in paragraphs. Dialogue is interwoven with a description of events. The setting and characters are indicated. Both stories feature interesting phrases, for example:

First story: you can count on me not to be nasty, the lift was down in a matter of seconds, the craze cracker was gleaming in the morning sunshine, they exchanged their goodbyes.
Second story: a whizzing flying saucer flew past their ears, for once in their life they believed him, yellow stars wound their way around a path.

Neither story makes use of literary devices such as similes and metaphors to enhance descriptions, although adjectives are effectively used in both, for example:

First story: Big friendly alien, super trooper kit, a bush that stood very tall.
Second story: glistening spiky shape, a strange forest, a rather thin tall man.

A summary of whole text strengths and weaknesses in Laura's stories is provided in Table 6.6. Each feature has been awarded a 'poor', 'fair' or 'good' report using the criteria identified
in Chapter 5, Section 5.7. The 'good' reports in both stories are shaded.

Table 6.6 Summary assessment of the whole text features for Laura's stories

<table>
<thead>
<tr>
<th>Theme</th>
<th>Feature</th>
<th>First story</th>
<th>Second story</th>
</tr>
</thead>
<tbody>
<tr>
<td>Story structure</td>
<td>Paragraphs</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td></td>
<td>Plot</td>
<td>Good</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>Opening</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td></td>
<td>Ending</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td></td>
<td>Complication</td>
<td>Poor</td>
<td>Poor</td>
</tr>
<tr>
<td></td>
<td>Theme</td>
<td>Poor</td>
<td>Poor</td>
</tr>
<tr>
<td>Character development</td>
<td>Personalities</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td></td>
<td>Dialogue</td>
<td>Good</td>
<td>Good</td>
</tr>
<tr>
<td>Use of literary devices</td>
<td>Setting</td>
<td>Good</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>Effects</td>
<td>Good</td>
<td>Good</td>
</tr>
</tbody>
</table>

The CHECK TEXT scores for both stories are presented in Table 6.7. The 'good' reports are shaded. The better and worse reports in the second story are highlighted in blue and yellow.

Table 6.7 CHECK TEXT scores for Laura's stories

<table>
<thead>
<tr>
<th>Laura</th>
<th>1st story</th>
<th>2nd story</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of words</td>
<td>593</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td></td>
<td>523</td>
</tr>
<tr>
<td>Variety of words in first 100</td>
<td>68%</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td></td>
<td>51%</td>
</tr>
<tr>
<td>Ands used to total words</td>
<td>4%</td>
<td>Fair</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.1%</td>
</tr>
<tr>
<td>Common connectives</td>
<td>1.5%</td>
<td>Fair</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.1%</td>
</tr>
<tr>
<td>Simple sentence starters</td>
<td>32%</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td></td>
<td>28.1%</td>
</tr>
<tr>
<td>Average sentence length in words</td>
<td>11.9</td>
<td>Fair</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9.2</td>
</tr>
<tr>
<td>Number of words over 5 letters</td>
<td>10.1%</td>
<td>Poor</td>
</tr>
<tr>
<td></td>
<td></td>
<td>14.1%</td>
</tr>
<tr>
<td>Common verbs used to total words</td>
<td>4.6%</td>
<td>Fair</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5.7%</td>
</tr>
<tr>
<td>Adverbs used to total words</td>
<td>0.3%</td>
<td>Poor</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1.3%</td>
</tr>
<tr>
<td>Common words to total words</td>
<td>10.1%</td>
<td>Fair</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9.9%</td>
</tr>
<tr>
<td>Mean words per sentence</td>
<td>11.9</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td></td>
<td>9.2</td>
</tr>
<tr>
<td>Sentence to comma ratio</td>
<td>4</td>
<td>Poor</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6</td>
</tr>
</tbody>
</table>
CHECK TEXT recorded similar scores for Laura’s first and second story for three features: simple sentence starters (first story = 32%, second story = 28.1%), average sentence length (first story = 11.9 words, second story = 9.2 words), and common words (first story = 10.1%, second story = 9.9%). The second story scored better for three features: use of the connective and (first story = 4%, second story = 2.1%), words > 5 letters (first story = 10.1%, second story = 14.1%), and adverbs (first story = 0.3%, second story = 1.3%). The second story scored worse for four features: total number of words (first story = 593 words, second story = 523 words), variety of words (first story = 68%, second story = 51%), common verbs (first story = 4.6%, second story = 5.7%), and sentence to comma ratio (first story = 4, second story = ∞).

There is little difference in quality between either the organisation or grammar elements of Laura’s stories. CHECK TEXT awarded both stories four ‘good’ reports. Both stories are detailed and well structured. Laura writes short, though punchy sentences, accurately demarcated by full stops, but not commas. Whilst some of her vocabulary is sophisticated and adventurous, the majority of the words she uses are basic.

6.2.4 Discussion
The story pairs written by the control group of children were fairly consistent in quality. Each pair of stories displays similar organisation and use of literary techniques. The CHECK TEXT scores reveal some variation in each story pair between certain individual grammar and style elements, but overall, there is little difference in grammar and style between each pair of stories. Some deterioration in certain grammar and style features is apparent between the first and second story for Sarah and David. It seems that a child, far from improving upon writing quality, may write worse, if writing a second story on exactly the same theme. The children corrected their own spellings, but made no other changes to either of their texts. Although the sample size of the control group is small, it is consistent with previous research such as Graves (1983) and Bereiter and Scardamalia (1987), discussed in Chapter 2 that children are unlikely to improve at story writing without receiving assistance or feedback.

6.3 Sophie
6.3.1 Writing performance
Sophie chose the woodland story theme (see Appendix B.4). Both the control and the HARRY assisted stories are written in the style of a diary, but feature very different events. Sophie’s control story demonstrates her particular strengths: she presents a logical series of events including a twist in the tale: four children go to stay in a cottage with their mother -
except the 'mother' is a witch disguised as their mother. The children are suspicious and discover her true identity by overhearing a phone conversation. They destroy the witch with a bucket of water. The story ends with the children safely back at home. Sophie attempts to build up suspense, uses simple adjectives to provide setting details, and indicates character's personalities, as this excerpt shows:

'She has pointed toes and holds her nose when we are around ... I never trusted her I told them to be careful and not to trust anyone essppeslie (especially) her and those dogs'.

The story has weaknesses however: it lacks an effective opening, the events of the story are not fully developed, nor presented in paragraphs, descriptions are composed of simple adjectives and not enhanced by techniques such as grouping adjectives into phrases or using similes (e.g. 'there's cobweb's hanging from the ceiling ... there's hard beds'), and the ending is rushed. There is little dialogue.

The HARRY assisted story follows a clear plan including a double 'twist' (first wolves start to attack, then a cave man appears). The ideas are fully developed in paragraphs. The story starts with the main characters introducing themselves directly to the reader and explaining that they are about to go to a holiday house. Characterisation is made clear, for example: Daniel is 'bossy and naughty ... he always wears his baseball cap backwards ... and a jumper tied round his waist'. Sophie uses original similes and a metaphor, for example 'we're as excited as a birthday party', and 'in their (the wolves) eyes there was a sharp bit of fire'. Adjectives are grouped together for effect using alliteration ('dark, damp, dank and dreary'). Suspense is deliberately created - two incidents are built up - the entry of the wolves and subsequently, the appearance of a strange creature. Pacing is achieved by varying sentence constructions - long descriptive sentences are interspersed with short simple and minor sentences, and by ending a paragraph on a cliff hanger, for example:

'Something moved behind me ... The wolves seemed to appear from THIN AIR, from behind ever tree their eyes glinting there was a rush of wind and the glinting vanished ... They pounced! Then gave chase but ...'

There is a detailed resolution: a cave man frightens the wolves away, then shows the children his home. This section contains much dialogue, although speech marks are not used. The ending brings the story round 'full circle': the children's parents have decided to buy the holiday home and the children are pleased they can continue to see their new friend.

Some weaknesses are apparent with the HARRY assisted story however: the story starts in an uninteresting way and ends rather abruptly, and Sophie's attempts at using adventurous phrases are not always successful, for example,
"I called down the hole Daniel it flooded down and out in a few short seconds, it filled the forest with life cries of birds the rustling of the wind".

Nevertheless, the organisation of the HARRY assisted story is better than the control. The ideas contained in the control story are difficult to follow; the HARRY assisted story is an exciting adventure which is mostly well paced and clearly explained.

A summary of whole text strengths and weaknesses in Sophie's stories is provided in Table 6.8. Each feature has been awarded a 'poor', 'fair' or 'good' report using the criteria identified in Chapter 5, Section 5.7. The 'good' reports in both stories are shaded. The better report in the assisted story is highlighted in blue.

<table>
<thead>
<tr>
<th>Theme</th>
<th>Feature</th>
<th>Control story</th>
<th>Assisted story</th>
</tr>
</thead>
<tbody>
<tr>
<td>Story structure</td>
<td>Paragraphs</td>
<td>Poor</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>Plot</td>
<td>Fair</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>Opening</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td></td>
<td>Ending</td>
<td>Poor</td>
<td>Fair</td>
</tr>
<tr>
<td></td>
<td>Complication</td>
<td>Poor</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>Theme</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td>Character</td>
<td>Personalities</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td>development</td>
<td>Dialogue</td>
<td>Poor</td>
<td>Poor</td>
</tr>
<tr>
<td>Use of literary</td>
<td>Setting</td>
<td>Poor</td>
<td>Good</td>
</tr>
<tr>
<td>devices</td>
<td>Effects</td>
<td>Fair</td>
<td>Good</td>
</tr>
</tbody>
</table>

The CHECK TEXT scores for both stories (including each stage) are presented in Table 6.9. The poor, fair, good reports help to show whether changes in the scores indicate an improvement or deterioration in writing performance. The 'good' reports for the control story and third stage of the HARRY assisted story are shaded. The better reports for the final draft of the assisted story compared to the control are highlighted in blue and the worse report in yellow.
Table 6.9 CHECK TEXT scores and reports for Sophie's stories

<table>
<thead>
<tr>
<th>Sophie (wood)</th>
<th>Control</th>
<th>1st stage</th>
<th>2nd stage</th>
<th>3rd Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feature</td>
<td>score/report</td>
<td>score/report</td>
<td>score/report</td>
<td>score/report</td>
</tr>
<tr>
<td>Total number of words</td>
<td>376</td>
<td>Fair</td>
<td>658</td>
<td>Good</td>
</tr>
<tr>
<td>Variety of words in first 100</td>
<td>76%</td>
<td>Good</td>
<td>79%</td>
<td>Good</td>
</tr>
<tr>
<td>Ands used to total words</td>
<td>2.4%</td>
<td>Good</td>
<td>3.5%</td>
<td>Fair</td>
</tr>
<tr>
<td>Common connectives</td>
<td>1.9%</td>
<td>Fair</td>
<td>1.7%</td>
<td>Fair</td>
</tr>
<tr>
<td>Simple sentence starters</td>
<td>18.2%</td>
<td>Good</td>
<td>22.2%</td>
<td>Good</td>
</tr>
<tr>
<td>Average sentence length in words</td>
<td>17.1</td>
<td>Poor</td>
<td>36.6</td>
<td>Poor</td>
</tr>
<tr>
<td>Number of words over 5 letters</td>
<td>16%</td>
<td>Fair</td>
<td>18.1%</td>
<td>Good</td>
</tr>
<tr>
<td>Common verbs used to total words</td>
<td>4.3%</td>
<td>Fair</td>
<td>4.7%</td>
<td>Fair</td>
</tr>
<tr>
<td>Adverbs used to total words</td>
<td>0.8%</td>
<td>Fair</td>
<td>1.7%</td>
<td>Good</td>
</tr>
<tr>
<td>Common words to total words</td>
<td>8.5%</td>
<td>Fair</td>
<td>9.9%</td>
<td>Fair</td>
</tr>
<tr>
<td>Mean words per sentence</td>
<td>17.1</td>
<td>Fair</td>
<td>36.6</td>
<td>Poor</td>
</tr>
<tr>
<td>Sentence to comma ratio</td>
<td>2.8</td>
<td>Poor</td>
<td>7.3</td>
<td>Poor</td>
</tr>
</tbody>
</table>

The scores for Sophie's control story reveal a strength in vocabulary - both variety and sophistication - (variety = 76%, words > 5 letters = 16%, adverbs = 0.8%, common verbs = 4.3%, common words = 8.5%) for example: 'surrounded, decided, insisted, normally, destroyed, trusted'. Her story shows evidence of the beginnings of mature sentence constructions (simple sentence starters = 18.2%, total basic connectives = 4.3%, of which 2.4% = the connective and). The story is reasonably detailed (376 words). CHECK TEXT reveals Sophie's weakness is in punctuation (average sentence length = 17.1 words, sentence to comma ratio = 2.8). By inserting full stops correctly in her text, her average sentence length is reduced to 8.2 words and sentence to comma ratio is improved to 0.7. Whilst the presence of commas indicates the presence of complex sentences (e.g. 'Not for me, I was too old'), the very low number of words per sentence indicates that Sophie writes using mostly simple sentences, although she varies the way she starts them (simple sentence starters = 10.9%).

CHECK TEXT awarded Sophie's HARRY assisted story five more good reports than her control story. The HARRY assisted story (final draft) is very detailed (663 words).
Improvements have been made with vocabulary choice (variety = 78%, words > 5 letters = 18.3%, common verbs = 4.1%, common words = 8.3%, adverbs = 1.8%). Many sophisticated words are used such as 'interrupted, approached, gigantic, hurtled, muttered, whispered, bravely, proudly'. More, but not all sentences are correctly punctuated (mean sentence length = 16.2, sentence to comma ratio = 1.1). There is evidence of more deliberate control with sentence structure - using simple and minor sentence structures for dramatic effect, for example 'We came to a dead end ... He understood us ... They pounced'. Complex sentences containing several clauses are constructed for example, 'Daniel was so excited that he crouched down and vanished down the hole before you could say stiganopithicus'. A weakness with punctuation is still evident however. Speech marks are incorrectly positioned and there are places where full stops (including question marks) and commas have been omitted.

6.3.2 Writing behaviour

Sophie demonstrated an ability to organise a series of events with the control story. With HARRY's assistance Sophie organised her ideas into paragraphs each containing a clear theme. For example, in response to a Key word prompt, Sophie wrote an entire paragraph describing how the wolves appeared. Many instances of cognitive conflict were evident in her writing. For example, HARRY's guiding action prompt suggested that the children in her story could discover a secret tunnel, a secret door, or a secret staircase in the wood. Sophie responded by writing about a hole in the ground which was home to a pack of wolves. Later, the guiding complication prompt suggested that someone could get injured or lost. The sentence help suggested that she could build up to the event by describing someone glimpsing or hearing something. Sophie responded by building up the entry of a strange creature, who saved the children from being attacked by the wolves:

'a strange creature poked (poked) his head out of a rather small cave slowly a hand then another hand. A shaggy large round fat head came out. The weird creature... was 10 feet hight (high)'

Similarly, HARRY's suggestion for suitable words to describe the wolves (scary, shaggy, fierce, mean, drooling saliva) caused Sophie to describe the wolves as 'wet drooling zombies'.

When writing the control story, Sophie demonstrated that she was reflecting about the appearance of her text - she made several changes to the layout and changed some words from lower case into capital letters. When composing the story with HARRY's assistance she made changes to the content of her text - she visibly changed her mind about her choice of words. For example, HARRY suggested that Sophie should describe the wood. Sophie read
the word help which listed the words 'eerie, scary and spooky', returned to a previous word help box which suggested the words 'dark, damp, cold and wet', then spent several minutes arranging words into an order she liked, finally producing the phrase, 'it's dark, damp, dank and dreary'. Sophie returned four times to the welcome section to add details to her original plan related to how the story was developing, including: the personality traits of her main characters, discovering wolves in the wood, and how a cave man saves the children.

The first stage, (the composition process) had a noticeably negative effect upon Sophie's punctuation - a weakness already detected within her control story. Her CHECK TEXT score after the first stage for mean sentence length (36.6 words) was twice that of the control story, indicating poorer use of full stops, and she used proportionally fewer commas to demarcate clauses than in the control story (sentence to comma ratio = 7.3 compared to 2.8 in the control). Reflecting about plot ideas and vocabulary seemed to have caused her to forget to punctuate her sentences. However, evidence of worse writing is a noted sign of rapid cognitive development (Karmiloff-Smith, 1992) and a sign of her willingness to experiment. By making editing suggestions at the second stage, HARRY helped Sophie improve her punctuation to a level similar to that demonstrated in the control story, but did not help her improve her punctuation sufficiently to achieve a 'good' report, as many sentences remained poorly punctuated. Although HARRY alerted Sophie to places where full stops and commas were needed in her story, she did not find all the places requiring them. For instance, she was directed to the following section of text requiring full stops (spelling was uncorrected at this stage):

The weird creature came out of the cave he was 10 feet high he let out an oooohhhhhhhhhhhhhhh immediately the wolves fled with fear.

Sophie positioned one full stop correctly after the word cave, and capitalised the first letter of the following word, but she did not notice the other two places where full stops were required.

6.4 James

6.4.1 Writing performance

James chose the enchanted journey story theme (see Appendix B.5). With the control story, James imagines a series of exciting events, but does not present them in an interesting way. The opening and the ending consist of a brief statement of the facts: 'The King is sick so he sends his people to get the magic stone ... So the King turned out all right'. In between, the story consists essentially of a list of events - James poses a problem in one sentence, provides the solution either at the end of the sentence or in the next, then immediately poses
another problem, again followed by the solution, thus creating a predictable 'see-saw' rhythm in his writing. For example:

'First they came to a massive rock. So one of them said let me help, so they did and he pushed it out of the way because he was a strong fighter ... then a fierce dragon appeared and started breathing fire and someone jumped up and chopped of his head'.

James' story follows the basic 'what next?' approach typical of younger writers, although he relies on the connectives 'so' and 'then', rather than the more basic 'and then' linkage. The setting is not described. Characters are anonymous, such as 'the man on the motor bike'. The writing lacks descriptive detail and dialogue which would help to bring the story alive.

The HARRY assisted story demonstrates better organisation and use of literary techniques than the control. Paragraphs are devoted to recording the events which are described in more detail than in the control story. An opening device is evident - a description of the opulent palace and the King's illness which includes adjectival expansion and similes:

'The King's palace had windows the size of [an] adult elephant and red velvet curtains ... There are marble walls, a gold shining statue and a pool the size of a football pitch'.

Characters are given names, and there is some interaction between them:

Kili and Fili (went) to look for a good cave ... Later they had ... "found a good cave not far from there," so Gandolf said "have you explored it" in a very fast voice, and they said "yes we have".

An attempt is made to build up suspense regarding the discovery of the all important stone: 'they noticed a glowing light ... suddenly sparks flow out and it crackled'. Several events are related, including complicating actions, for example finding a shelter for the night and an attack by goblins, which help to convey a sense of time. A satisfactory ending is provided with the characters receiving rewards for their efforts. Several weaknesses are also apparent however. There is insufficient dialogue - conversation is recorded in only one paragraph. The story lacks description - details are recorded in lists, such as the character's names and the equipment taken on the journey, and little detail is supplied concerning the complicating actions, for example the sudden arrival of the 'dangerous people'. The story fluctuates between present and past tense.

A summary of whole text strengths and weaknesses in James' stories is provided in Table 6.10. Each feature has been awarded a 'poor', 'fair' or 'good' report using the criteria identified in Chapter 5, Section 5.7. The 'good' reports in both stories are shaded. The better reports in the assisted story are highlighted in blue.
Table 6.10 Summary assessment of the whole text features for James' stories

<table>
<thead>
<tr>
<th>Theme</th>
<th>Feature</th>
<th>Control story</th>
<th>Assisted story</th>
</tr>
</thead>
<tbody>
<tr>
<td>Story structure</td>
<td>Paragraphs</td>
<td>Poor</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>Plot</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td></td>
<td>Opening</td>
<td>Poor</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>Ending</td>
<td>Poor</td>
<td>Fair</td>
</tr>
<tr>
<td></td>
<td>Complication</td>
<td>Poor</td>
<td>Poor</td>
</tr>
<tr>
<td></td>
<td>Theme</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td>Character development</td>
<td>Personalities</td>
<td>Poor</td>
<td>Poor</td>
</tr>
<tr>
<td></td>
<td>Dialogue</td>
<td>Poor</td>
<td>Poor</td>
</tr>
<tr>
<td>Use of literary devices</td>
<td>Setting</td>
<td>Poor</td>
<td>Fair</td>
</tr>
<tr>
<td></td>
<td>Effects</td>
<td>Poor</td>
<td>Fair</td>
</tr>
</tbody>
</table>

The CHECK TEXT scores for both stories (including each stage) are presented in Table 6.11. The poor, fair, good reports help to show whether changes in the scores indicate an improvement or deterioration in writing performance. The 'good' reports for the control story and third stage of the HARRY assisted story are shaded. The better and worse reports for the final draft of the assisted story compared to the control are highlighted in blue and yellow.

Table 6.11 CHECK TEXT scores and reports for James' stories

<table>
<thead>
<tr>
<th>James (journey)</th>
<th>Control</th>
<th>1st stage</th>
<th>2nd stage</th>
<th>3rd Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feature</td>
<td>score/report</td>
<td>score/report</td>
<td>score/report</td>
<td>score/report</td>
</tr>
<tr>
<td>Total number of words</td>
<td>454 Good</td>
<td>560 Good</td>
<td>536 Good</td>
<td>530 Good</td>
</tr>
<tr>
<td>Variety of words in first 100</td>
<td>63% Fair</td>
<td>65% Fair</td>
<td>72% Good</td>
<td>69% Good</td>
</tr>
<tr>
<td>Ands used to total words</td>
<td>4.2% Fair</td>
<td>7.1% Poor</td>
<td>4.7% Poor</td>
<td>4.7% Poor</td>
</tr>
<tr>
<td>Common connectives</td>
<td>5.3% Poor</td>
<td>2.1% Poor</td>
<td>2.6% Poor</td>
<td>2.6% Poor</td>
</tr>
<tr>
<td>Simple sentence starters</td>
<td>32.4% Good</td>
<td>20.8% Good</td>
<td>19.4% Good</td>
<td>22.9% Good</td>
</tr>
<tr>
<td>Average sentence length in words</td>
<td>13.4 Good</td>
<td>23.3 Poor</td>
<td>17.3 Poor</td>
<td>15.1 Good</td>
</tr>
<tr>
<td>Number of words over 5 letters</td>
<td>12.3% Poor</td>
<td>13.4% Poor</td>
<td>15.9% Fair</td>
<td>16.2% Fair</td>
</tr>
<tr>
<td>Common verbs used to total words</td>
<td>5.9% Poor</td>
<td>2.7% Good</td>
<td>1.3% Good</td>
<td>1.3% Good</td>
</tr>
</tbody>
</table>
The scores for James' control story reveal a strength in punctuating sentences with full stops (mean sentence length = 13.4 words). The lack of commas (sentence to comma ratio = 2.7) either indicates the presence of few complex sentences or incorrectly demarcated complex sentences. Closer examination of the text indicates that the majority of sentences are simple or compound constructions, suggesting that James is most secure with these basic sentence structures. The CHECK TEXT scores reveals James' weakness is vocabulary, which is simple and unvaried (variety = 63%, common words = 15.4%, number of words > 5 letters = 12.3%, common verbs = 5.9%, adverbs = 0.2%). In addition, he relies upon basic sentence connectives (total = 9.5%, ands = 4.2%, common connectives = 5.3%). CHECK TEXT indicates that James varies the way he starts sentences. Only one third (32.4%) of James' sentences begin with pronouns or the definite article. However, James also starts a third of sentences with the connectives 'So' and 'Then', not detected by CHECK TEXT. Adding the use of these basic connectives to start sentences to other simple sentence starters reveals how James starts two thirds of his sentences in a similar way, using the most basic of constructions.

CHECK TEXT recorded two more 'good' reports for the assisted story than the control. The scores for James' HARRY assisted story indicate that vocabulary (variety and sophistication) is improved (variety = 69%, words > 5 letters = 16.2%, common verbs = 1.3%, common words = 8.7%). Adventurous words such as, invisibility, exploring, obstacle, noticed, courtiers, retrieve, revived, clutched are used. Sentence construction is also more varied. Sentences are started in more sophisticated ways (simple sentence starters = 22.9%) and fewer common connectives are used (2.6%) although there is a similar proportion of 'and's (4.7%). The higher number of words per sentence indicates a greater variety of sentence types. The presence of some complex constructions is indicated by the good sentence to comma ratio (0.7).

6.4.2 Writing behaviour
James' control story consisted of a chain of events. It was a simple 'what next?' story particularly lacking in dialogue and description. HARRY helped James improve his story organisation during the first stage by encouraging James to concentrate on a section of the
story at a time and to include descriptive details. Changing James' usual 'factual', taciturn approach was not easy however - demonstrated by the fact that James' HARRY assisted story was only 76 words longer than the control. In addition, James included dialogue in only one section.

James wrote both stories slowly and unenthusiastically - he rested his head on his right hand and typed painstakingly with the index finger of his left hand. He responded well to HARRY's suggestions in the first section, diligently following all of the advice - with the consequence that the entire section was devoted to describing the King's palace and his illness (part of which was quoted earlier). However, in the subsequent sections, although he apparently read all of the available advice, he ignored much of it. For example, in section 2 HARRY offered many suggestions for how to create interesting characters. The suggestions included:

**Guiding:** Tell me more about the travellers chosen to undertake the difficult task.  
**Ideas:** Did they behave strangely? Did they make everyone laugh? Had they just dashed in from another adventure?  
**Sentence help:** Use dialogue to show how confident they are, like this: "Of course I'm not scared, I killed a pit of snakes and wild wolves on my last mission!"  
**Word help:** Use adverbs to describe how things are done, like this: hopping quickly from one foot to another ... cheekily, cleverly, loudly.  
**Check:** Have you given the travellers interesting names? Did they prove their bravery in tests?

James only responded to the guiding and check prompts, writing:

'People come from far away to prove them selves by going on an obstickle (obstacle) cours (course). The people that made it were Gandolf, Fili and Kilii, Bilbo, and Thourin. Gandolf is a wizard. Thourin, Kilii and Fili are dworves and bilbo is a hobbit (a small creature with a small nose and big eyes').

Furthermore, when, in a key word section presented as section 5, HARRY suggested writing a more detailed description of the cave in which the travellers had set up camp for the night (including many ideas for how to achieve this) as well as developing a tangential plot idea based on the cave, James did not write anything. He believed that he had already described the cave sufficiently in the previous section. The description of the cave was limited however:

'Looking up you could see horrible water driping and the hole thing (the cave) was covered in dark black'.

That fact that the composing prompts at the first stage did not cause James to use many more adventurous words is reflected in the CHECK TEXT scores. The scores for variety of vocabulary, long words, adverbs and common words were similar to the control story.
Consequently, HARRY detected many simple words in James' story at the editing stage. Half of the 34 editing prompts delivered, suggested that James should either delete the unnecessary simple word or supply a more sophisticated alternative. Following the advice resulted in an improved score for 'long words' and contributed to the improved score for variety. At the first stage CHECK TEXT recorded a similar score to the control for 'long words' (13.4%). After editing, the score was improved to 15.9%.

James had clearly tried hard however. Concentrating on writing descriptions had a negative effect upon James' use of full stops and use of the connective 'and' - a sign of a change in his approach. In addition, his average sentence length increased by 10 words per sentence between the control story and the first stage, indicating poorer use of full stops. The percentage of ands used at the end of the first stage (7.1%), a figure 3% higher than the control story, indicated that James was relying more heavily upon very basic sentence constructions. The worse scores were due to the difficulty James experienced with expanding sentences to include adjectives and descriptive phrases. His solution was to link descriptive phrases with the connective 'and', for example:

'The ceiling is tiled and there are marble walls and a gold shining statues and a pool the size of a football pitch and in a locked room there is an invisable (invisibility) cloak (there are only three of them in the universe (universe)).'

At the editing stage, HARRY highlighted the problem in six of the seven sections and James improved his sentence constructions:

'The ceiling is tiled. There are marble walls, a gold shining statue and a pool the size of a football pitch. In a locked room there is an invisable (invisibility) cloak (there are only three of them in the universe (universe)).'

After the editing stage, the percentage of ands used (4.7%) was similar to the score achieved by the control story (4.2%), but the poor report indicated the prevailing dependence upon the most basic 'what next?' sentence constructions. Reducing the occurrences of the connective 'and' helped improve the score for variety of vocabulary, which increased by 7% at the second stage. Replacing some 'and's with a full stop helped to improve his mean words per sentence from 23.3 to 17.3.

6.5 Stephanie

6.5.1 Writing performance

Stephanie chose the enchanted journey story theme (see Appendix B.6). Stephanie's control story demonstrates that her strength is using dialogue to create suspense and make her story progress, as this excerpt shows:
"What was that?" asked Christopher in a very scared voice. "Probably just the wind" replied Luke. "No honestly it wasn't it was a sort of growling noise" said Christopher now in a very hurried way. "You try listening and see if you can hear it" said Christopher. The monster growled again and that time Luke heard it.

She writes a long story, which relates a logical series of events including a complicating action, although she does not use paragraphing to convey the events clearly. Several weaknesses are apparent. The opening and ending of the story are uninteresting. Her story lacks 'balance'. Some events are related in detail, whilst others, particularly the opening, and the ending are described briefly. She does not use adjectival phrases or similes etc. to describe the setting, her character descriptions are limited, and there are few imaginative or unusual events.

The main theme of the control story is explored again in the HARRY assisted story, but with some improvements. An interesting opening which grabs the reader's attention is created. She uses an entire paragraph comprised of conversation to build up the King's illness, before dropping the bombshell at the very end of the paragraph that he has cancer: "Do you think the king will live?" asked Rachael. "I doubt it," replied Stephanie. "Who will take his replacement if he does die?" asked Georgia... "Do you know what is wrong with him?" puzzled Stephanie "What's wrong with who?" asked the royal Doctor who happened to be passing by. "What is wrong with the king?" "Replied Rachael. "The King has skin cancer," announced the doctor.

Characterisation is evident - particularly the 'old lady' who turns out to be not as nice as she first appears. More imaginative events are recounted in addition to those included in the control story (locating the magic stone and the encounter with monsters) such as flying broomsticks, meeting a strange old lady and a thunderstorm. Patterning is used for effect: 

In the highest room in the tallest tower there is a closet. In that closet there is a chest of draws (drawers) with 3 draws (drawers) in, in the middle draw (drawer) there is a large jewellery box, in that box there is a stone and a piece of paper...

Stephanie writes about the encounter with monsters in a different, but equally effective, way to the control. She chooses not to give details about how the monster is killed, or whether injuries are sustained. Instead, she creates a break in the story. A comment made by one of the characters: 'Later... 'thanks for saving me you two' indicates that a fight with a successful outcome had taken place. In the final paragraph, Stephanie again uses dialogue to explain that the travellers have arrived back at the palace "At last we're home!!!" Stephanie's ending to her HARRY assisted story is more detailed than the control story. In addition to recording how the stone successfully restores the King's health, she explains how the travellers are rewarded for their efforts. Although Stephanie's HARRY assisted story demonstrates many strengths, some weaknesses are also evident. Generally, the story lacks descriptive details -
adjectival expansion, similes and metaphors etc. No information is supplied concerning the appearance of the King’s palace, the wood or the monsters.

A summary of whole text strengths and weaknesses in Stephanie’s stories is provided in Table 6.12. Each feature has been awarded a ‘poor’, ‘fair’ or ‘good’ report using the criteria identified in Chapter 5, Section 5.7. The ‘good’ reports in both stories are shaded. The better reports in the assisted story are highlighted in blue.

Table 6.12 Summary assessment of the whole text features for Stephanie’s stories

<table>
<thead>
<tr>
<th>Feature</th>
<th>Control story</th>
<th>Assisted story</th>
</tr>
</thead>
<tbody>
<tr>
<td>Story structure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paragraphs</td>
<td>Poor</td>
<td>Good</td>
</tr>
<tr>
<td>Plot</td>
<td>Fair</td>
<td>Good</td>
</tr>
<tr>
<td>Opening</td>
<td>Fair</td>
<td>Good</td>
</tr>
<tr>
<td>Ending</td>
<td>Fair</td>
<td>Good</td>
</tr>
<tr>
<td>Complication</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td>Theme</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td>Character development</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personalities</td>
<td>Poor</td>
<td>Fair</td>
</tr>
<tr>
<td>Dialogue</td>
<td>Good</td>
<td>Good</td>
</tr>
<tr>
<td>Use of literary devices</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Setting</td>
<td>Poor</td>
<td>Fair</td>
</tr>
<tr>
<td>Effects</td>
<td>Fair</td>
<td>Fair</td>
</tr>
</tbody>
</table>

The CHECK TEXT scores for both stories (including each stage) are presented in Table 6.13. The poor, fair, good reports help to show whether changes in the scores indicate an improvement or deterioration in writing performance. The ‘good’ reports for the control story and third stage of the HARRY assisted story are shaded. The better and worse reports for the final draft of the assisted story compared to the control are highlighted in blue and yellow.

Table 6.13 CHECK TEXT scores and reports for Stephanie’s stories

<table>
<thead>
<tr>
<th>Feature (journey)</th>
<th>Control</th>
<th>1st stage</th>
<th>2nd stage</th>
<th>3rd Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>score/report</td>
<td>score/report</td>
<td>score/report</td>
<td>score/report</td>
<td></td>
</tr>
<tr>
<td>Total number of words</td>
<td>570</td>
<td>Good</td>
<td>871</td>
<td>Good</td>
</tr>
<tr>
<td>Variety of words in first 100</td>
<td>59%</td>
<td>Poor</td>
<td>60%</td>
<td>Poor</td>
</tr>
<tr>
<td>Ands used to total words</td>
<td>4.7%</td>
<td>Poor</td>
<td>3.8%</td>
<td>Fair</td>
</tr>
</tbody>
</table>
The CHECK TEXT scores indicate that Stephanie's strength in the control story is with sentence construction and with punctuating sentences with full stops. She understands the structure of a complete sentence as she positions full stops accurately (mean words per sentence = 12.7 words). There is some variation in sentence structure (average sentence length = 12.7 words, simple sentence starters = 31.1%). There is some evidence of complex sentence constructions, for example 'They travelled east until the sun set then they set up camp', although she does not display their grammatical structure with commas (sentence to comma ratio = 4.2). The scores indicate a general weakness with vocabulary, both variety (59%) and sophistication (number of words > 5 letters = 10.5%, common words = 10.7%, common verbs = 4.9%) although she makes good use of adverbs (1.6%) for example, immediately, finally, probably, honestly. Stephanie relies on the connective 'and' (4.7%) suggesting a predominance of compound sentences.

The HARRY assisted story is much more detailed (866 words) demonstrating more sophisticated vocabulary (common words = 5%, common verbs = 1.5% although words > 5 letters = 13.1% and adverbs = 0.8%), but no improvement in variety (variety = 59%). Sentence construction is also improved. Sentences are started in a greater variety of ways (24.1%) and fewer basic connectives are used (ands = 3.2%, common connectives = 0.4%). Although the average sentence length of 10.8 words indicates the presence of many short simple sentences, there is some evidence that many are also mature complex constructions (sentence to comma ratio = 0.3). These include:

'Hopefully, nobody will (includes an understood clause - take my place if I die) because if you succeed in this task, I will live longer than I am heading for.

Just as they started quarrelling, an old lady came by and asked them what was wrong.
Suddenly, there was a flash of lightning followed by two enormous rumbles.

"She's right think of it as a cloud going shopping, bumping into another cloud and they start chatting to each other," suggested the old woman.

6.5.2 Writing behaviour

Stephanie worked slowly when writing both the control and the assisted story. She frequently leaned back on her chair for long periods without writing. When using the full HARRY writing system, she did not always open all of the pop-up boxes, or she opened the boxes, but did not respond to the suggestions. As Stephanie did not make much use of HARRY's assistance, she therefore did not change her usual approach.

With the control story, Stephanie demonstrated her ability to create suspense by using dialogue. HARRY suggested using this technique in the first section, and thereby helped Stephanie write a more effective opening to her assisted story than her control. HARRY also helped her to achieve writing which was more 'balanced' - paragraphs were devoted to particular themes. Stephanie was resistant to HARRY's help suggestions for using more sophisticated and adventurous vocabulary. CHECK TEXT recorded consistently poor scores in both stories for variety of words and for words longer than five letters, although the editing suggestions (approximately half of the 44 editing prompts delivered were concerned with simple words) helped Stephanie reduce the number of common words she used. Stephanie found and changed the word 'said' 19 times, commenting, "HARRY doesn't like the word said!" She also changed the words went, got, get and going (which she had used 7 times each) for more sophisticated alternatives.

Stephanie concentrated on HARRY's suggestions for plot ideas, using her usual approach of developing the events through dialogue, rather than applying the word and sentence help suggestions for enhancing descriptions. For example, in the sixth section, HARRY's guiding prompt suggested that the journey could take the travellers through a wood. Many ideas for how to create an effective description were available:

**Ideas help:** Listen! What sounds can be heard? Trampling feet? Eerie echoes? The wind whistling through the branches?

**Sentence help:** Use a simile to describe the trees like this: enormous trees as big as giants, shook their branches. What do the branches look like? How would you describe the trees?

**Word help:** blustery, cool, dense trees, thick undergrowth, dry crisp leaves, fluttering in the breeze.

**Check:** Have you used at least five adjectives? Have you written a simile to make a really powerful description?

Stephanie however, simply wrote the next events of her story:
‘Rachael Stephanie and Georgia got on a broomstick. Immediately the broomsticks flew into the air and went off to the castle of doom. The broomsticks took them to the stone room let the girls get off and went away. Stephanie found the two stones told the others and off they went back to the wood.’

The subsequent (key) prompt (based on the word ‘wood’) offered more suggestions for writing a description, but Stephanie merely responded with another event. She wrote about an attack by monsters, explaining the event through dialogue. She described neither the wood nor the monsters. The style she used to explain the event was little different to that used to record the same event in her control story (spelling was uncorrected at this stage):

**HARRY assisted story:** SUDDENLY......half way through the wood a monster came out of a hole, jumped onto georgia and slobbered all over her. "Get it before it attacks Georgia" said Stephanie. "It is after the stone" said Rachael. "Give me a sword then Stephanie" said Rachael. Later......."Thanks for saving me you two ...

**Control HARRY:** "What was that?" asked Christopher in a very scared voice. "Probably just the wind" replied Luke ... The monster growled again and that time Luke heard it. "That noise?" he asked. "Yes that noise" replied Christopher. At that very moment the monster came out of the bush he was hiding behind, jumped on Luke and started attacking him ... He very quickly got the king's magic sword out of his rucksack and stabbed it into the monster.

### 6.6 Rachael

#### 6.6.1 Writing performance

Rachael chose the pirate story theme (see Appendix B.7). The control story indicates that Rachael can write lively, entertaining stories. The story, though short, contains many successful features - paragraphs, an interesting opening explaining the theme of the story (a problem with the crew), an introduction to the characters (all of whom have specific jobs on board ship), an event (the one female pirate - Betsy - makes the rest of the crew wait upon her), and a satisfying ending. The moral of her story is that the captain is reminded through Betsy’s actions that she is a lady. Her action ensures that he remembers to call his crew ‘ladies and gents’ and not to refer to them all as ‘lads’.

Rachael demonstrates that she is aware of the humorous, colloquial style pirate stories are usually written in when she writes in the introduction:

‘Welcome aboard the spicy island...I shall begin if you don't mind.’

She ends her story in the same happy-go-lucky manner, bringing the story around ‘full circle’: ‘They were the good old days when all I did was order people to do things and ly (lie) in the sun. Bye from the spicy island.’
She devises appropriate names for the characters, such as 'Fatso' who is the ship's cook and 'Wolly' (presumably meaning Wally) who is the ship's entertainer. A light-hearted style is used throughout, such as:

'She pulled out a chair and watched the sea splashing at the sides of the ship. She called down to Fatso a strawberry cocktail please.'

Patterning is used for effect:

'There was a rumbling and a tumbling they all knew what it was.'

Although the control story contains a clear beginning, middle and end, with some characterisation and description of the setting, the story lacks detail and events.

The HARRY assisted story is a more effective story than the control. It contains many more features expected of pirate stories - traditional phrases, more humorous character sketches and details of the ship etc. The opening dialogue is chosen carefully to set the scene and the tone of the story. The reader's interest is immediately engaged by the ironical comment:

"'There she is, she's beautiful" the captain sighed. Captain Paul of the good ship GOLDEN GIRL was looking at his rusty dirty ship and calling it beautiful!"

The beginning-middle-end-structure evident in the control story was improved upon in the HARRY assisted story. The story recounts a series of events including a twist in the tale and a resolution, ending with an effective, succinct, final comment:

"Well cheers to our new lives," exclaimed the captain. In a few weeks time they were living in gold.

Typical sayings are incorporated, such as 'Shiver me timbers', as well as some with slight variations, such as 'Yo ho ho and a bottle of grog'. The story contains many of the elements expected of a pirate adventure. There is a crew of rather stupid pirates (though some are 'brainier' than others), huge waves, desert islands with palm trees, swaying hammocks, sharks, much panic on board ship, and most important of all, 'TREASURE!' 

The story is well structured and fast moving. Paragraphing is used to group ideas together. Dialogue is regularly interspersed between descriptions of the events. Pacing is achieved by building up slowly to key events, such as the events leading up to the pirates falling overboard:

'What they didn't know was that there was a big wave coming. Then the wave came to the sides of the ship. It had to be a very large wave to reach all the way to the top of the ship..."
because it was a very tall ship. Hammocks swayed and knocked the two lazy twins into the sea.'

Details of the setting are mentioned at intervals during the story. The 'very tall' ship is 'rusty' and 'dirty', with a 'crossbones' flag. On deck there are 'torn hammocks', and out at sea there are 'little bits of sand where the palm trees grew tall'. Characterisation is clear. There are 'lazy pirates' who spend their time 'lying in torn up hammocks'. These pirates get what they deserve, for they are washed overboard by a huge wave. This starts an argument between the 'lazy pirates' and the 'brainy pirates'. The 'brainy pirates' blame the fact that the ship 'hit something and disappeared into thin air' on the lazy behaviour of these pirates, commenting:

"It is all your fault you two, if you weren't so lazy you wouldn't have fell over board" argued the working brothers'

Later, when a shark attacks, the 'lazy pirates' are similarly critical of the 'brainy pirates' saying with a smirk on their faces:

"Ahhh! You didn't get us out of this one did you"

The pirates' enthusiasm for treasure is made obvious:

'The crew had to speak sometime because what they had seen was what they wanted. Altogether (not knowing that another pirate or pirates were going to say it as well) they screamed, "Lets grab it."

The only weakness with the story organisation of the HARRY assisted story is that some of the characters lack detail such as their names.

A summary of whole text strengths and weaknesses in Rachael's stories is provided in Table 6.14. Each feature has been awarded a 'poor', 'fair' or 'good' report using the criteria identified in Chapter 5, Section 5.7. The 'good' reports in both stories are shaded.

Table 6.14 Summary assessment of the whole text features for Rachael's stories

<table>
<thead>
<tr>
<th>Theme</th>
<th>Feature</th>
<th>Control story</th>
<th>Assisted story</th>
</tr>
</thead>
<tbody>
<tr>
<td>Story structure</td>
<td>Paragraphs</td>
<td>Good</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>Plot</td>
<td>Fair</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>Opening</td>
<td>Good</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>Ending</td>
<td>Good</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>Complication</td>
<td>Fair</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>Theme</td>
<td>Good</td>
<td>Good</td>
</tr>
</tbody>
</table>
Table 6.15 CHECK TEXT scores and reports for Rachael’s stories

<table>
<thead>
<tr>
<th>Rachael (pirate)</th>
<th>Control</th>
<th>1st stage</th>
<th>2nd stage</th>
<th>3rd Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Feature</strong></td>
<td>score/report</td>
<td>score/report</td>
<td>score/report</td>
<td>score/report</td>
</tr>
<tr>
<td>Total number of words</td>
<td>350 Fair</td>
<td>699 Good</td>
<td>744 Good</td>
<td>745 Good</td>
</tr>
<tr>
<td>Variety of words in first 100</td>
<td>67% Fair</td>
<td>70% Good</td>
<td>72% Good</td>
<td>72% Good</td>
</tr>
<tr>
<td>Ands used to total words</td>
<td>2% Good</td>
<td>2.6% Fair</td>
<td>2.3% Good</td>
<td>2.3% Good</td>
</tr>
<tr>
<td>Common connectives</td>
<td>1.7% Fair</td>
<td>2% Fair</td>
<td>1.9% Fair</td>
<td>1.9% Fair</td>
</tr>
<tr>
<td>Simple sentence starters</td>
<td>39.3% Fair</td>
<td>50% Fair</td>
<td>32.8% Good</td>
<td>32.8% Good</td>
</tr>
<tr>
<td>Average sentence length in words</td>
<td>12.5 Good</td>
<td>15.2 Good</td>
<td>12.8 Good</td>
<td>12.8 Good</td>
</tr>
<tr>
<td>Number of words over 5 letters</td>
<td>14.9% Fair</td>
<td>13.9% Fair</td>
<td>14.8% Fair</td>
<td>14.8% Fair</td>
</tr>
<tr>
<td>Common verbs used to total words</td>
<td>3.4% Good</td>
<td>5.9% Poor</td>
<td>5.1% Fair</td>
<td>5% Fair</td>
</tr>
<tr>
<td>Adverbs used to total words</td>
<td>0.3% Poor</td>
<td>0.7% Fair</td>
<td>0.9% Fair</td>
<td>0.9% Fair</td>
</tr>
<tr>
<td>Common words to total words</td>
<td>7.1% Good</td>
<td>10.4% Fair</td>
<td>9.3% Fair</td>
<td>9.1% Fair</td>
</tr>
<tr>
<td>Mean words per sentence</td>
<td>12.5 Fair</td>
<td>15.2 Fair</td>
<td>12.8 Good</td>
<td>12.8 Good</td>
</tr>
<tr>
<td>Sentence to comma ratio</td>
<td>∞ Poor</td>
<td>15.2 Poor</td>
<td>0.9 Good</td>
<td>0.8 Good</td>
</tr>
</tbody>
</table>

CHECK TEXT scores for the control story show that most sentences are accurately demarcated with full stops (mean words per sentence = 12.5), but that commas are never used. The low percentage of the basic connective and (2%) and other common connectives (1.7%) suggests that the writing consists of mostly simple, and few compound sentence constructions. A reasonable range of sentence structures is evident (simple sentence starters = 39.3%). Vocabulary is reasonably sophisticated (common words = 7.1%, common
verbs = 3.4%, number of words > 5 letters = 14.9%) for example, reminds, entertainer, harbour, cocktail, sniffing, explained and varied (variety = 67%).

CHECK TEXT awarded Rachael's HARRY assisted story three more good reports than her control story. CHECK TEXT indicates that improvements have been made in the variety (72%), although not the sophistication of vocabulary (words > 5 letters = 14.8%, common verbs = 5%, common words = 9.1%, adverbs = 0.9%) used in the HARRY assisted story. Sentence construction is improved with clauses in complex sentences demarcated by commas (sentence to comma ratio = 0.8) and different ways of starting sentences being attempted (simple sentence starters = 32.8%).

6.6.2 Writing behaviour

When writing both the control and the assisted story, Rachael worked fast - without pausing or rereading any part of her story. During the composing (first) stage of the HARRY assisted story, Rachael flicked quickly between the help boxes, closing them all down before writing each section. She typed furiously, like a touch typist. Although Rachael appeared to open and close the boxes too quickly to allow sufficient time for fully reading their contents, the suggestions contained within them seemed to influence the ideas Rachael developed in her story. HARRY's word suggestions (such as sharks, treasure, hammock, bedlam) may have caused her to devise the events described above around them. There were several signs that Rachael was reflecting about the content of her story. For instance, in the welcome section, Rachael recorded details concerning the ship's appearance. She intended to call it the 'scruffy ship' because it was 'really scruffy', 'dirty and untidy', with a 'rusty funnel'. However, when Rachael wrote her opening paragraph, she demonstrated how she had considered the ship's appearance from the Captain's point of view - although the ship was shabby, he considered it beautiful! She may have been influenced by one of HARRY's help ideas which asked 'Is it a shabby or neat ship?' The second guiding prompt suggested that 'one of the pirates could cause an accident by being lazy or clumsy about one of his jobs'. A suggestion within the supporting ideas prompt was 'perhaps a pirate (who can't swim) falls overboard', whilst sentence help suggested using dialogue such as 'it's all your fault...' . A humorous argument between the 'lazy pirates' and the 'brainy pirates' became the central theme of her story, starting from when the lazy pirates were knocked out of their hammocks overboard. When writing the final paragraph Rachael commented on how she liked the word 'cheers' (from one of the sentence help suggestions for how to end the story). She kept the sentence help box open the entire time she was writing the final section, to remind herself to finish the story with the Captain saying 'Cheers!'
It had been anticipated that the editing suggestions would cause the children to simply 'tidy up' their writing - refine single words and rethink punctuation because the process of reviewing and revising would have already occurred. HARRY's editing suggestions prompted Rachael to critically re-evaluate her writing. She deleted words, phrases and sentences, and substituted others in three of the sections. Research such as Shaughnessy's (1977) - outlined in Chapter 2 - has indicated that making these kinds of changes is a rare occurrence for beginner writers. The CHECK TEXT analysis reveals how Rachael wrote an additional 45 words during the second stage. For instance, Rachael started to alter her fifth section (where HARRY had merely suggested finding alternative words for 'saw, going and then'), then decided to completely rewrite the section. This is how the section had been written before editing:

'Know one was actually helping because they were all trying to steer away from the shark. Nobody noticed what was going to happen. They were steering themselves into a sea rock. Then they all saw what happened they drove themselves through the rock'.

After editing, the paragraph was changed to (N.B. new phrases and sentences have been underlined):

'Know one was actually helping because they were all trying to steer away from the shark. Nobody noticed what would be happening to them in a matter of seconds. They were steering themselves into a sea rock. Soon after they all knew what was happening they had driven themselves through the rock. They thought they had escaped from the shark because a door had opened and let them into a secret hiding place really. So it looked like they were safe but the shark would not give up..........

Similarly, Rachael spent some time rethinking the way she started her sentences in response to HARRY detecting that she had started many of them with the definite article. Giving 'The captain' a name partially helped solve one problem: 'The captain was awakened by cheers of joy' was altered to 'Captain Paul was awakened by cheers of joy', but Rachael was not entirely satisfied with her solution. During the process of correcting spellings with the spell checker available with Microsoft Word, the grammar checker offered an alternative solution: 'Cheers of joy awakened Captain Paul', which, in view of the struggle she had just experienced, clearly felt like inspiration - "Oh, that's how you do it," she remarked.
6.7 Lauren

6.7.1 Writing performance

Lauren chose the space story theme (see Appendix B.8). The difference in the two stories is remarkable. With the control story Lauren reveals an inability to write at length or imaginatively. She produces a complete story in just 50 words:

'I was ready for take off 5,4,3,2,1, go there was lots of smoke I was zooming into space it was fun I got out I thort wow this is better than a milky bar I kept walking I seen aliens were everywhere I think I should get out of here'

With the HARRY assisted story, using the same basic ideas contained in the control story (meeting aliens in space) she tells a haunting nightmare, albeit using similar simple sentence constructions and a limited vocabulary. Although the HARRY assisted story is simply written with short simple sentences and unadventurous vocabulary, it shows the beginnings of a successful story writing style. An attempt has been made to create an interesting opening (playing a computer game), provide descriptions ('luminous lights'), a simile ('stars glistened like bright yellow lights'), a metaphor ('we were home before we could speak'), a series of events and characters who interact and express their feelings (for example, Mum is scared in space, but Jon is not). The ending however, digresses from the main theme of the story.

A summary of whole text strengths and weaknesses in Lauren's stories is provided in Table 6.16. Each feature has been awarded a 'poor', 'fair' or 'good' report using the criteria identified in Chapter 5, Section 5.7. The 'good' reports in both stories are shaded. The features which are better in Lauren's assisted story when compared to her control story are also highlighted.

Table 6.16 Summary assessment of the whole text features for Lauren's stories

<table>
<thead>
<tr>
<th>Theme</th>
<th>Feature</th>
<th>Control story</th>
<th>Assisted story</th>
</tr>
</thead>
<tbody>
<tr>
<td>Story structure</td>
<td>Paragraphs</td>
<td>Very poor</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>Plot</td>
<td>Very poor</td>
<td>Fair</td>
</tr>
<tr>
<td></td>
<td>Opening</td>
<td>Very poor</td>
<td>Fair</td>
</tr>
<tr>
<td></td>
<td>Ending</td>
<td>Very poor</td>
<td>Poor</td>
</tr>
<tr>
<td></td>
<td>Complication</td>
<td>Very poor</td>
<td>Poor</td>
</tr>
<tr>
<td></td>
<td>Theme</td>
<td>Very poor</td>
<td>Poor</td>
</tr>
<tr>
<td>Character development</td>
<td>Personalities</td>
<td>Very poor</td>
<td>Poor</td>
</tr>
<tr>
<td></td>
<td>Dialogue</td>
<td>Very poor</td>
<td>Poor</td>
</tr>
<tr>
<td>Use of literary devices</td>
<td>Setting</td>
<td>Very poor</td>
<td>Poor</td>
</tr>
</tbody>
</table>
The CHECK TEXT scores for both stories (including each stage) are presented in Table 6.17. The poor, fair, good reports help to show whether changes in the scores indicate an improvement or deterioration in writing performance. The ‘good’ reports for the control story and third stage of the HARRY assisted story are shaded. The better and worse reports for the final draft of the assisted story compared to the control are highlighted in blue and yellow.

Table 6.17 CHECK TEXT scores and reports for Lauren’s stories

<table>
<thead>
<tr>
<th>Lauren (space)</th>
<th>Control</th>
<th>1&lt;sup&gt;st&lt;/sup&gt; stage</th>
<th>2&lt;sup&gt;nd&lt;/sup&gt; stage</th>
<th>3&lt;sup&gt;rd&lt;/sup&gt; Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feature</td>
<td>Score/report</td>
<td>Score/report</td>
<td>Score/report</td>
<td>Score/report</td>
</tr>
<tr>
<td>Total number of words</td>
<td>50 (Poor)</td>
<td>391 (Good)</td>
<td>391 (Good)</td>
<td>391 (Good)</td>
</tr>
<tr>
<td>Variety of words in first 100</td>
<td>76% (Good)</td>
<td>71% (Good)</td>
<td>71% (Good)</td>
<td>71% (Good)</td>
</tr>
<tr>
<td>Ands used to total words</td>
<td>0% (Odd)</td>
<td>2% (Good)</td>
<td>1.8% (Good)</td>
<td>1.8% (Good)</td>
</tr>
<tr>
<td>Common connectives</td>
<td>0% (Odd)</td>
<td>0.3% (Good)</td>
<td>0.3% (Good)</td>
<td>0.3% (Good)</td>
</tr>
<tr>
<td>Simple sentence starters</td>
<td>0% (Odd)</td>
<td>20% (Good)</td>
<td>22.2% (Good)</td>
<td>22.2% (Good)</td>
</tr>
<tr>
<td>Average sentence length in words</td>
<td>50 (Poor)</td>
<td>78.2 (Poor)</td>
<td>24.4 (Poor)</td>
<td>21.7 (Poor)</td>
</tr>
<tr>
<td>Number of words over 5 letters</td>
<td>14% (Poor)</td>
<td>10% (Poor)</td>
<td>11.5% (Poor)</td>
<td>11.3% (Poor)</td>
</tr>
<tr>
<td>Common verbs used to total words</td>
<td>14% (Poor)</td>
<td>6.1% (Poor)</td>
<td>4.3% (Fair)</td>
<td>4.4% (Fair)</td>
</tr>
<tr>
<td>Adverbs used to total words</td>
<td>0% (Poor)</td>
<td>0.5% (Poor)</td>
<td>0.5% (Poor)</td>
<td>0.5% (Poor)</td>
</tr>
<tr>
<td>Common words to total words</td>
<td>14% (Poor)</td>
<td>8.4% (Good)</td>
<td>6.4% (Good)</td>
<td>6.4% (Good)</td>
</tr>
<tr>
<td>Mean words per sentence</td>
<td>50 (Poor)</td>
<td>78.2 (Poor)</td>
<td>24.4 (Poor)</td>
<td>21.7 (Poor)</td>
</tr>
<tr>
<td>Sentence to comma ratio</td>
<td>50 (Poor)</td>
<td>0% (Poor)</td>
<td>8.1 (Poor)</td>
<td>7.2 (Poor)</td>
</tr>
</tbody>
</table>

In the control story, Lauren uses commas in her list of numbers for a countdown, but no other punctuation. Surprisingly, for so basic a story, she does not link her ideas with any common connectives. The story actually contains eight sentences, seven of which are simple. The real average sentence length is 5 words indicating very simple sentence constructions. Sixty percent of the sentences begin with a pronoun.

The CHECK TEXT scores indicate that improvements have been made in virtually all aspects of written grammar - the HARRY assisted story achieved six ‘good’ reports, whereas the control story achieved none. The HARRY assisted story is detailed (391 words) and contains a variety of vocabulary (71%). Few common words are used (common words =
6.4%, common connectives = 0.3%, ands used = 1.8%), although the story does not contain sophisticated vocabulary either (words > 5 letters = 11.3%, adverbs = 0.5%). Sentence construction and punctuation are weak (mean sentence length = 21.7, sentence to comma ratio = 7.2). Examination of the text reveals that sentence construction and punctuation are weaker than suggested by the CHECK TEXT scores. The true average sentence length (achieved by accurately demarcating the sentences with full stops) is 5 words, the same as the control, indicating that again, most sentences are simple. However, sentences are started in a variety of ways (simple sentence starters = 16.7%).

6.7.2 Writing behaviour

Lauren appeared to struggle to make sense of the prompts. She spent long periods of time gazing at the screen without writing, sometimes studying the alternative help suggestions again and again. The prompts in each section prompted Lauren to write between 35 and 88 words, an average of 56 words per section - a similar number to the total recorded for the control story. Her responses show that she had reflected on the ideas. For example, the start guiding prompt suggested starting the story with dialogue. Ideas help suggested several ideas for who could be talking, including children playing a computer game and there was a reminder to the writer that someone should also reply. Lauren followed the suggestions, recording a conversation between a boy and his mother - the boy is telling his mother about a scary dream he has had in the night, where he was lost in space. Lauren is clearly unaware of how to record dialogue. She does not use speech marks or indicate clearly who is talking:

'this is a good computer game jon time for bed jon said mum by next day I had the funniest dream listen we where in a rocket we went to mars I got out and you lost me you went looking all over mars but you still could not find me'

In the next section, Lauren followed the advice for how to create a description of the setting and 'borrowed' the phrases 'luminous lights' and 'stars glistened like ....' which she completed with 'bright yellow lights'. Again, in the subsequent 'character' section, Lauren followed the advice to include dialogue, borrowed the phrases 'I'll go first' and 'I'm not scared', then continued the conversation in her own way.

It is possible that Lauren considered her story complete after the first four sections - with the safe return of the rocket to Earth. HARRY encouraged her to go beyond such a simple ending, requiring her to consider a complicating action. HARRY helped her towards writing about imagined events, indicating ways of expanding her story (by including descriptions and dialogue etc.), but did not always help her to sustain the approach - she wanted to write
factually about events which were important to her, such as the birth of a new baby in the household.

HARRY did not improve upon Lauren’s sentence constructions. Simple sentences prevailed. HARRY successfully reminded Lauren to punctuate her sentences with full stops and commas. Although the final scores for mean sentence length (21.7) and sentence to comma ratio (7.2) for the assisted story were ‘poor’ indicating that Lauren had omitted many full stops and commas, the scores demonstrate a great improvement had been made.

6.8 Tom

6.8.1 Writing performance

Tom chose the enchanted journey theme the second time he wrote using the HARRY writing system. The difference between Tom’s control story and the assisted version is phenomenal. The control story indicates that Tom is aware of many features which contribute to successful story writing - he attempts to write about events in an interesting way (e.g. using dialogue to explain the problem - ‘People of Pamialar I need someone to get this rummed (rumoured) magic stone’), makes use of literary devices such as flashbacks, intersperses descriptions of events with dialogue (e.g. meanwhile things were going haywire at the palace “where is he” said a guard), attempts to portray characters personalities (e.g. Scott’s mother shows motherly concern when she yells, “Be careful Scott”) and describe the setting (e.g. ‘a boulder rolled after him … it made a hole in the wall’). However, his writing lacks balance - whilst some events are described in some detail, others are recounted too briefly, and, although his story contains a structured and complicated series of events, Tom does not use paragraphing to make the sections clear.

The HARRY assisted story is much more successful. The story is detailed and well structured with themed paragraphs. A clear, yet complicated plot containing many surprises is gradually unfolded, although hints about future happenings are dropped at intervals. The story progresses logically, containing an opening that grabs the reader’s interest stating the problem to be solved, a series of imaginative events including several complicating actions (e.g. a fake stone, a large pit to cross, an encounter with pickpockets, falling down the side of a cliff) with ingenious solutions provided (such as crossing a pit by sliding down a rope on coathangers!), a resolution and a satisfying ending. Settings and characters are well described using dialogue, adjectival phrases and similes. For example, dialogue at the start of the opening paragraph is used to build up to the main point of the story - the King’s health:

"WHAT?" cried the servant as he served breakfast.
"Hu!" asked the cook "what happened?"
"I think we'd all like to know that" said another servant.
"The king is ill!" The king was ill and knew one could deny it.
...The king...fell to the ground with tiredness.

Tom later creates a feeling of suspense in his story by using dialogue to build up an incident:
"Help," cried a voice.
"Help!" there it was again.
"HELP!!" I thought I heard a voice Rosie told the others. Jack gave Cheeky a sideways look the children stumbled forward and found Frank clinging on for dear life.

An original simile is used to describe in detail the way that some of the characters are rescued from the rock face:
'...by grabbing Jack's hand and reeling them in like a fisherman would his catch!'

The fact that the town visited by the travellers, is a busy crowded place is well conveyed using assonance ('hustle and bustle'), alliteration ('crowded cobbled streets') and well chosen phrases ('they had to squeeze through the crowd to arrive at the inn'). A comment about the noise level completes the picture - 'the town always had a blare of music on classical, jazz...and tons of chatter'.

Tom deliberately keeps his reader in suspense about the magician character, achieved by using a combination of dialogue and descriptive phrases. At first, it is uncertain whether meeting the magician will be helpful to the travellers. They are cautious, not knowing quite what to expect:
'He looked friendly, but they approached carefully.
"I don't trust him" whispered Frank.
"I don't either" replied Jack in a whisper.  
The magician was very tall. He had a trailing black cloak dropping down behind him and a pointed hat.'

Their initial fears prove ungrounded, for he turns out to be helpful, providing them with food, shelter, transport back to the palace and a timely magic potion.

The only weakness evident in the writing is that Tom's attempts to use adventurous phrases are not always successful, for example:
'Boy was it busy there was a hustle and bustle...They reerised (realised) that the town always had blare of music on classical, jazz or about just anything...'

A summary of whole text strengths and weaknesses in Tom's stories is provided in Table 6.18. Each feature has been awarded a 'poor', 'fair' or 'good' report using the criteria identified in Chapter 5, Section 5.7. The 'good' reports in both stories are shaded.
Table 6.18 Summary assessment of the whole text features for Tom’s stories

<table>
<thead>
<tr>
<th>Theme</th>
<th>Feature</th>
<th>Control story</th>
<th>Assisted story</th>
</tr>
</thead>
<tbody>
<tr>
<td>Story structure</td>
<td>Paragraphs</td>
<td>Poor</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>Plot</td>
<td>Fair</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>Opening</td>
<td>Fair</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>Ending</td>
<td>Poor</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>Complication</td>
<td>Fair</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>Theme</td>
<td>Poor</td>
<td>Good</td>
</tr>
<tr>
<td>Character development</td>
<td>Personalities</td>
<td>Fair</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>Dialogue</td>
<td>Fair</td>
<td>Good</td>
</tr>
<tr>
<td>Use of literary devices</td>
<td>Setting</td>
<td>Fair</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>Effects</td>
<td>Poor</td>
<td>Good</td>
</tr>
</tbody>
</table>

The CHECK TEXT scores for both stories (including each stage) are presented in Table 6.19. The poor, fair, good reports help to show whether changes in the scores indicate an improvement or deterioration in writing performance. The 'good' reports for the control story and third stage of the HARRY assisted story are shaded. The better and worse reports for the final draft of the assisted story compared to the control are highlighted in blue and yellow.

Table 6.19 CHECK TEXT scores and reports for Tom's journey stories

<table>
<thead>
<tr>
<th>Tom (journey)</th>
<th>Control</th>
<th>1st stage</th>
<th>2nd stage</th>
<th>3rd Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feature</td>
<td>score/report</td>
<td>score/report</td>
<td>score/report</td>
<td>score/report</td>
</tr>
<tr>
<td>Total number of words</td>
<td>306 Fair</td>
<td>1096 Good</td>
<td>1099 Good</td>
<td>1098 Good</td>
</tr>
<tr>
<td>Variety of words in first 100</td>
<td>66% Fair</td>
<td>76% Good</td>
<td>75% Good</td>
<td>73% Good</td>
</tr>
<tr>
<td>Ands used to total words</td>
<td>2.3% Good</td>
<td>4.1% Fair</td>
<td>2.8% Fair</td>
<td>2.7% Fair</td>
</tr>
<tr>
<td>Common connectives</td>
<td>4.2% Poor</td>
<td>3.3% Poor</td>
<td>2% Fair</td>
<td>2.2% Poor</td>
</tr>
<tr>
<td>Simple sentence starters</td>
<td>40% Fair</td>
<td>31.4% Good</td>
<td>29.5% Good</td>
<td>31% Good</td>
</tr>
<tr>
<td>Average sentence length in words</td>
<td>30.6 Poor</td>
<td>21.5 Poor</td>
<td>13.9 Good</td>
<td>12.6 Good</td>
</tr>
<tr>
<td>Number of words over 5 letters</td>
<td>15% Fair</td>
<td>16.5% Fair</td>
<td>18.8% Good</td>
<td>17.7% Good</td>
</tr>
<tr>
<td>Common verbs used to total words</td>
<td>6.2% Poor</td>
<td>4.1% Good</td>
<td>2.3% Good</td>
<td>2.3% Good</td>
</tr>
<tr>
<td>Adverbs used to total words</td>
<td>0% Poor</td>
<td>0.5% Poor</td>
<td>0.7% Fair</td>
<td>0.7% Fair</td>
</tr>
<tr>
<td>Common words to total words</td>
<td>12.7% Poor</td>
<td>11.5% Fair</td>
<td>7.1% Good</td>
<td>7.2% Good</td>
</tr>
</tbody>
</table>
The CHECK TEXT scores indicate that the control story is reasonably detailed (306 words). Tom has progressed from using the most basic of sentence connectives (number of 'ands' used = 2.3%), but relies quite heavily upon other basic connectives (common connectives = 4.2%). Nevertheless, Tom is beginning to try mature complex sentence constructions (e.g. *The king was suffering from a type of anesserier (sic) a kind of sickness that could kill you*). Tom uses a reasonable variety of words (66%) and some of his vocabulary is sophisticated (words > 5 letters = 15%) such as: *suffering, honour, informed, hurried, obstacle, complete, instincts, boulder, sprinted*.

CHECK TEXT reveals weaknesses in punctuation (mean number of words per sentence = 30.6, sentence to comma ratio = 6.1) and vocabulary. Although there is a reasonable variety of words and some sophisticated vocabulary, there is a high proportion of simple words (common words = 12.7%, common verbs = 6.2%) and the writing lacks adverbs (0%).

The CHECK TEXT scores indicate that improvements have been made in the HARRY assisted story to virtually all aspects of written grammar. The HARRY assisted story achieved nine 'good' reports, whereas the control achieved just one. The assisted story is very detailed (1098 words). Vocabulary is sophisticated such as *sparkling, ordered, retrieve, decided, spotted, performances, culprit, pursuit, panicked, produced* etc. (variety = 73%, words > 5 letters = 17.7%, common words = 7.2%, common verbs = 2.3%, adverbs = 0.7%). The writing contains a variety of sentence structures (simple sentence starters = 31%) e.g. *'It was clearly a magician who lived there because he had robes on.' And "By order of King Robert, somebody has to surch (search) for the fabled healing stone".* Sentences are mostly accurately demarcated with full stops (mean words per sentence = 12.6) and commas (sentence to commas ratio = 0.3). A reliance upon common connectives (common connectives used = 2.2%) is the only remaining weakness.

**6.8.2 Writing behaviour**

Tom conscientiously consulted, then reflected upon much of the available advice, with beneficial results. His assisted story was considerably better than the control. Many instances of the occurrence of cognitive conflict with beneficial results were evident. For example, reflecting upon a prompt suggesting appropriate words to describe the palace - vast windows, tiled ceiling, marble floor, sumptuous red velvet curtains, golden statues, magnificent candelabra caused Tom to create several powerful descriptive phrases - *'... the
servants ran to court (court) through the glittering gold palace and through tall high doors like ladders. The King looked through the vast open window swounded (surrounded) in jewels ...

6.9 National Curriculum Levels

National Curriculum levels were awarded to each story by the children’s class teacher, in consultation with his colleagues. The stories were presented in a random order to the teacher. Information concerning the author of each story and the version of HARRY that had been used, was withheld. In addition to the overall levels of attainment, separate levels were awarded for grammar (including style) and organisation (including literary techniques). The levels awarded are presented in Table 6.20.

Table 6.20 National Curriculum levels awarded to each story

<table>
<thead>
<tr>
<th>Child</th>
<th>Overall NC level</th>
<th>Grammar and style level</th>
<th>Organisation and literary technique</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sophie (control)</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Sophie (assisted)</td>
<td>4</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Stephanie (control)</td>
<td>3</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Stephanie (assisted)</td>
<td>5</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>James (control)</td>
<td>2</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>James (assisted)</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Rachael (control)</td>
<td>3</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Rachael (assisted)</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Lauren (control)</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Lauren (assisted)</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Tom (control)</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Tom (assisted)</td>
<td>4</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

The table shows that each child improved by at least one National Curriculum overall. The breakdown of the figures reveals how HARRY helped all of the children improve on the organisation (including literary techniques) of their stories. However, although HARRY helped Stephanie and Lauren improve their grammar by one level, and Rachael and Tom by
two levels, no change in the level of grammar attainment was recorded for James and Sophie.

Children have four years at Key Stage 2 to improve their writing to Level 4 or above. As approximately 80% of seven year olds reach Level 2 or above in the Key Stage 1 tests, an improvement of two levels in four years is generally anticipated at Key Stage 2. With HARRY's assistance, each child's story writing improved overall by at least one National Curriculum level. Stephanie's, Rachael's and Tom's HARRY assisted stories improved by two levels. All of the control stories were below the Government's minimum target for 11 year olds of Level 4, as might be expected of children aged 9 years. However, the HARRY assisted stories written by Tom, Sophie, Stephanie and Rachael would meet the Government's target of Level 4 or above for 11 year olds, although the children are two years younger than the age tested by the national SATs. James' assisted story almost reached the target level. Although Lauren's HARRY assisted story is well below the national target, it shows greater maturity than the control.

6.10 Summary of HARRY's effects upon writing performance

The performance of all the children involved in this study improved when they wrote with HARRY's assistance.

Sophie's assisted story was better structured than her control. Strengths previously detected in the control story - her use of adjectives to describe the setting and attempts to create suspense - were considerably developed. In the assisted story, Sophie created vivid setting descriptions and built up suspense more effectively through the careful selection of words and sentence structure, although a weakness in punctuation prevailed.

For James, the main weaknesses detected in the control story - the lack of descriptive detail, poor sentence structure and unadventurous vocabulary - were improved upon in the assisted story, but the story still lacked detail and interaction between the characters.

For Stephanie, her skill at using dialogue to explain events, which she demonstrated in the control story, was put to effective use in the assisted story, with the creation of an opening designed to grab the reader's interest. In addition, she devised more imaginative plot ideas and improved characterisation. However, some aspects remained unaffected - such as her weakness in variety of vocabulary and lack of setting descriptions.
Rachael paid more attention to detail and developed a more involved plot in her assisted story. The story demonstrated a more effective opening, pacing, setting descriptions, more interaction between the characters, improved sentence structure and a more detailed resolution.

Lauren's control story had been very basic. Her more detailed assisted story showed the beginnings of a successful story writing style, including: an interesting opening, descriptions of events, characters who interact, with their thoughts and feelings explained, more adventurous vocabulary and more accurate punctuation.

Tom's assisted story was more detailed than the control and contained more imaginative plot ideas, effective descriptions, characterisation, more literary techniques such as an opening device, original similes and description interspersed with dialogue, increased use of punctuation, and adventurous and sophisticated vocabulary, and a greater variety of sentence constructions.

6.11 Summary of HARRY's effects upon writing behaviour

HARRY's word suggestions interested Sophie, causing her to review her choice of vocabulary with beneficial results. Sophie visibly became immersed in a process of reviewing and revising, for she considered her choice of vocabulary carefully and altered her plans for the direction her story should take. There were several incidences of cognitive conflict. Sophie did not directly copy HARRY's suggestions. Instead, she reflected upon them, then devised original ideas of her own. Reflecting about the plot and vocabulary choice initially had a negative effect upon punctuation - evidence of her willingness to experiment.

James clearly found it hard to sustain the change to his usual approach. With the first and fourth sections of the assisted story, he appeared to reflect upon the advice. He wrote a detailed description and included some dialogue - features his control story lacked. Whilst writing these sections, James' dependence upon the basic connective 'and' increased. This deterioration in writing quality is a sign of his willingness to experiment. He did not maintain this new approach however - the other sections lacked both description and dialogue.

Stephanie reflected upon HARRY's suggestions for plot ideas, but was resistant to considering HARRY's suggestions for reviewing alternative vocabulary and sentence constructions. CHECK TEXT revealed no difference between her stories regarding variety of
words and words longer than five letters. Both features achieved a consistently poor report - a persistent weakness in writing that was otherwise very effective.

Rachael reviewed and revised her use of vocabulary, phrasing and the direction of her story in response to HARRY's composing prompts. Several of HARRY's suggestions were incorporated into her story. The editing suggestions caused her to critically re-examine her writing. She deleted words, phrases and sentences, substituting others, in three of the sections. In addition she re-ordered the words in some sentences in order to vary the way she started her sentences. Making substantial alterations to a text in this way is a rare occurrence in beginner writers.

Lauren diligently consulted many of HARRY's suggestions, such as including dialogue and similes etc. She copied some of the ideas, then developed the ideas further. Her responses revealed that HARRY had made her think deeply, for her second story demonstrated considerably more detail and literary techniques than the control.

Tom was prompted by HARRY's suggestions to think of many original ideas of his own. With HARRY's assistance Tom's interesting ideas were organised, developed and shaped into an effective story.

Thus, HARRY's approach was effective with these children. They revised more and their writing improved. Furthermore, HARRY helped each child develop his/her own individual writing style - for example, although three of the children chose the same journey story theme, all three wrote very different stories, partly because they received different prompts, but also because HARRY's suggestions were interpreted differently. Consequently, each child's personality is evident in their writing.

6.12 Technical evaluation

The obvious drawback to using HARRY is that children may not choose to consult the prompts, they may not read all of the advice, they may read but ignore the advice, or they may forget the advice is available. If children do not request or consider the available help, they will not experience the writing process scaffolded by HARRY and will be unaffected by the system. With the current prototype, there are no incentives to encourage children to view the pop-up boxes and no reminders. Furthermore, HARRY does not check whether a child has responded adequately to the advice. No feedback is given concerning composition features such as the use made of literary techniques. Thus, for the children involved in the
study, although their writing improved with HARRY's assistance, some weaknesses remained. For example, James included too little dialogue in his journey story. A better writing style could have been achieved if dialogue had been interspersed with descriptions. Similarly, Stephanie's assisted story lacked similes, metaphors, adjectives and adverbs etc.

Likewise, the editing stage relies on the child to locate the errors, then make appropriate changes. For the children involved in the study, some errors remained after the editing process had been completed, either because the child was unable to locate the problem, or because the extent of the problem was not recognised by the child. For example, HARRY only commented once per section on some aspects, such as the use of the word 'said', although there were several places in the section where the problem existed. The children did not always identify all the places where they had used the word 'said' etc. Some difficulties were experienced with the prompt alerting the children to overly long sentences, requiring them to break the 'sentence' into phrases with commas or shorter sentences with full stops. Sometimes they failed to notice all the places requiring full stops and commas. Consequently, some writing still lacked full stops and/or commas after editing. New errors created during editing were also not detected and therefore remained uncorrected. None of the children were able to identify the sequence of short or long sentences detected by HARRY and therefore did not improve upon them. The prompts for these weaknesses were too imprecise to help with their identification. In addition, not all aspects of grammar are commented upon by HARRY. For example, HARRY is not programmed to detect errors related to the presentation of speech or places where children make carriage returns without punctuating them with full stops.

With the resources available within the school involved in the study, the Internet connection was found impractical for writing a story with the full system. Problems were encountered with the school's RM network web connection: help boxes were often extremely slow at 'popping up', particularly in the afternoon session and the connection was occasionally lost with the consequence that some text was also lost. Two portable laptops, each installed with a personal web-server, were used instead. Computers networked to a school based web server would make it easier for a school to run the HARRY system than using a slow web connection. The school involved in the study changed its network provider at the end of the project.
6.13 Conclusions

The stories produced by the control group revealed little difference in, or slightly worse writing quality between the first and second stories, suggesting that children are unlikely to improve at story writing without assistance. This is consistent with research such as Graves (1983) and Bereiter and Scardamalia (1987) discussed in Section 2.5. By contrast, the stories produced with HARRY's assistance were better than the control stories written without any assistance. Thus, HARRY's writing tutorial, consisting of suggestions designed to stimulate children's memory searches, inspire original ideas, and make revisions, and editing suggestions designed to help children detect and correct many grammar and style weaknesses, was successful. All six children involved in the study made improvements to their writing when assisted by HARRY, evidenced by improved story structure, more detail, more effective use of literary techniques, more accurate punctuation, and more sophisticated vocabulary and sentence construction. In addition, HARRY appeared to be an effective guide through the process of reflection, characteristic of mature writers, evidenced by the improved writing quality, the instances of cognitive conflict, the temporary drop in writing quality and the observable changes made by the children to their texts. The analysis of the results from this school study indicated that HARRY was successful at helping children write better stories when they worked with the system, provided they followed the advice. A follow-up study designed to investigate the after effects of using the system, was subsequently conducted. The results of this study are reported in Chapter 7.
Chapter 7
SYSTEM EVALUATION - PART TWO

HARRY 'helped me do my work better than I thought I could ... You know that first story I wrote, I think I've improved since then'. (Nicole)

7.1 Introduction

The evaluation of the stories written by the six children described in Chapter 6 suggested that HARRY offered effective support for story writing - the children changed the way they approached the writing task and their writing improved when they used the system, provided they followed the advice. A logical next step was to investigate whether children showed any improvements when they wrote a story after using the system. A small-scale follow up study was undertaken to investigate this issue. Briefly, six more children were observed as they wrote first a story without assistance (the pre-test), then a story with the full assistance of HARRY on the same theme (the intervention strategy) and finally, another story written without assistance (the post test). All the stories were evaluated quantitatively and qualitatively and the post test story compared with the pre-test for each child. It was anticipated that the children would not want to write three stories on the same theme, therefore it was suggested that they choose a different theme for the third (post test) story. The children were also interviewed, as a further source of triangulation. Full details of the research design for this follow up study are described later in this section.

The investigation was a challenging proposition - would another group of children also improve their writing with HARRY's assistance and would they learn how to improve their writing from a single use of the HARRY system, such that they wrote a better unassisted story subsequently, even though the children were likely to find the theme more challenging and less appealing because it was their second choice? The results from the follow up study reported in this chapter suggest that as well as helping children improve their writing whilst using the system, writing a story with HARRY's assistance can help children to improve their subsequent writing. All six children in the follow up study wrote better stories with HARRY's assistance. Five of the six children went on to produce post test stories that were better overall than their pre-test stories. The sixth child wrote a post test story that contained some better, but some much worse features. During the interviews, all the children indicated they thought they had improved at writing. Five of the six children demonstrated that they knew more about how to achieve a 'good' story after using HARRY. In addition, all the children said they liked using HARRY and felt that HARRY made writing a story easier.
The follow up study reported in this chapter was conducted in the same primary school as the first study, but involved children from a mixed-age class composed of Year 4 and Year 5 children (8-10 year olds). Six children were chosen randomly from those who, with the consent of their parents, volunteered to take part in the study. The children were observed as they wrote three stories: a story written with the cut-down version of the HARRY system, a story on the same theme written with HARRY’s full assistance and a story on one of the other themes using the control version of HARRY again. The children were free to choose the theme of their stories from the four given themes - pirates, space, wood and journey. All the children were given a copy of their stories to take home and a copy to keep in their literacy folders at school. Table 7.1 provides a summary of the children’s ages, their writing ability relative to their year group (as indicated by the class teacher) and their choice of theme for each of the three stories. The children corrected their own spellings for all three of their stories using the spell-checker available with Microsoft Word.

Table 7.1. Table showing the age and the ability level of each child involved in the study, and the story theme selected for stories written with and without HARRY’s assistance.

<table>
<thead>
<tr>
<th>Child’s name</th>
<th>Age</th>
<th>Writing ability</th>
<th>Pre-test and assisted story theme</th>
<th>Post test story theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mollie</td>
<td>9 years</td>
<td>average</td>
<td>Space</td>
<td>Pirates</td>
</tr>
<tr>
<td>Nicole</td>
<td>10 years</td>
<td>average</td>
<td>Pirates</td>
<td>Space</td>
</tr>
<tr>
<td>Charlotte</td>
<td>8 years</td>
<td>average</td>
<td>Space</td>
<td>Wood</td>
</tr>
<tr>
<td>Ricky</td>
<td>10 years</td>
<td>above average</td>
<td>Space</td>
<td>Pirates</td>
</tr>
<tr>
<td>Andrew</td>
<td>9 years</td>
<td>average</td>
<td>Pirates</td>
<td>Wood</td>
</tr>
<tr>
<td>Demi</td>
<td>8 years</td>
<td>average</td>
<td>Wood</td>
<td>Pirates</td>
</tr>
</tbody>
</table>

In addition to writing three stories, the children were interviewed three times - after each story had been completed. The first and third sets of interview questions focused on the children’s perceptions of their writing ability and how to write ‘good’ stories. These interviews were conducted at a table away from the lap top computer the child had been using. Print outs of all three stories were given to each child at the start of the third interview for the child to refer to when answering the questions. The font style and size was exactly the same on each print out. Great care was taken to avoid asking questions inferring that a particular response was being looked for. So, for example, rather than ask ‘Do you think HARRY helped you to improve at writing?’ the children were asked to say which of their stories they thought was the best and the second best. And again, rather than simply ask at the end of the study, ‘What do you think you learned from HARRY about writing?’ the children were asked several
related questions before and after using HARRY, such as 'What do you think makes a good story good?' and 'What do you think you could do to make your stories better?' so that their responses before and after the intervention could be compared. The second set of interview questions focused on eliciting the children's opinions of the HARRY system - both positive and negative. This interview was conducted next to the laptop computer with one of the sections from the composing stage visible on the screen for the child to refer to. Care was taken to avoid asking the children to reflect out loud on what HARRY was trying to tell them about story writing at this stage of the study, as the act of articulating HARRY's advice for how to write a good story might have helped them internalise the advice and therefore influenced the way they wrote the post test story. All the interview questions are presented in Table 7.2.

Table 7.2 Interview questions

<table>
<thead>
<tr>
<th>Set 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Do you think you are good at writing stories? Why/ Why not?</td>
<td>2. Do you usually find writing stories easy or difficult? Why do you find writing stories easy/difficult?</td>
</tr>
<tr>
<td>3. What do you think you usually do well at when writing a story?</td>
<td>4. What do you think you could do to make your stories better?</td>
</tr>
<tr>
<td>5. What do you think makes a good story good?</td>
<td>6. What would make a story not very good?</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Set 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Did you find it easier or harder to write a story with HARRY than without, or was it the same? (What was easier/harder?)</td>
<td>2. Do you think you wrote better, worse or the same with HARRY than you do normally?</td>
</tr>
<tr>
<td>3. Did you find HARRY helpful for writing a story or not? Why?</td>
<td>4. Did you use the help boxes? Which ones did you find most helpful? Were any unhelpful? (Why were they unhelpful?)</td>
</tr>
<tr>
<td>5. Did you like using the HARRY program? What did you like the most about it. What did you like the least?</td>
<td>6. How could we improve HARRY? What do you think would make HARRY better/more fun/easier to use?</td>
</tr>
</tbody>
</table>
The children worked two at a time on laptops positioned side by side on one of the tables in the classroom. How to use the system was explained whilst the children completed the first section of each stage, as in the first study. All writing for the project took place during literacy lessons, each lasting one hour. However, no time limit was imposed - it was explained to the children that they could have as much time as they needed to complete each story. This was inline with how the teacher was observed to operate - he often involved the class in extended writing projects spanning several lessons, although the children were only expected to write for half of the lesson, as the teacher tended to spend half of the lesson talking through the activity. It was felt inappropriate to time the children precisely, stopwatch style. Instead, the approximate length of time taken by each child to complete each story, to the nearest quarter hour, was recorded. All the times are presented in Table 7.3. As can be seen from the table, all the pre-test stories were completed within one lesson - that is, within an hour or less. All the children spent much longer writing their assisted stories - between one and a quarter and three and a half hours longer - due partly to spending time reading the prompts. Five of the children spent longer writing their post test story than their pre-test story - between half an hour and two hours longer. One child took the same time to complete the pre and post test stories. All the children spent less time writing the post test story than the assisted.

Other observations were also unobtrusively recorded whilst the children were writing each of the stories, including: visibly playing with words and phrases, deleting and rewriting words and phrases, rereading earlier sections, asking for help and spontaneous comments made by the children whilst in the process of writing. Visible reactions made by the children to the HARRY system were also noted.
Table 7.3 Time taken for each child to complete each of the stories

<table>
<thead>
<tr>
<th>Child</th>
<th>Pre-test story</th>
<th>Assisted story</th>
<th>Post test story</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mollie</td>
<td>1 hour</td>
<td>4¼ hours</td>
<td>2½ hours</td>
</tr>
<tr>
<td>Nicole</td>
<td>1 hour</td>
<td>3¼ hours</td>
<td>1½ hours</td>
</tr>
<tr>
<td>Charlotte</td>
<td>1 hour</td>
<td>3½ hours</td>
<td>2 hours</td>
</tr>
<tr>
<td>Ricky</td>
<td>¾ hour</td>
<td>2 hours</td>
<td>1¾ hours</td>
</tr>
<tr>
<td>Andrew</td>
<td>1 hour</td>
<td>2½ hours</td>
<td>1 hour</td>
</tr>
<tr>
<td>Demi</td>
<td>1 hour</td>
<td>4½ hours</td>
<td>3 hours</td>
</tr>
</tbody>
</table>

For each child, the project spanned three weeks. During the first week, the child was asked to write the pre-test story then answer the first set of interview questions. The child wrote the assisted story then answered the second set of interview questions during the second week. The post test story, followed by the final set of questions, was completed during the third week of the study. Thus, the whole study was completed in a nine week period, running from mid-September until end-November.

The results for each child are presented as a separate case study. Each of the three stories (final drafts) produced by the child are assessed in a similar way to the first study. Differences between the pre-test and post test stories, for whole text and grammar/style features are highlighted in separate tables. Each child's perceptions of their story writing abilities and what makes a good story are discussed, the Information having been provided by the interviews. All the children's opinions of the HARRY system are discussed in Section 7.9. The children's stories (final drafts) are reproduced in full in Appendix B.

7.2 Mollie

Mollie chose the space theme for her first and HARRY assisted story and the pirate theme for her follow up story. Her stories are reproduced in full in Appendix B.10.

7.2.1 Comparison of whole text features

Mollie's pre-test story is a very basic 'what next?' story. The story lacks detail, characterisations, description of the setting, literary devices, events, a problem to be resolved, and is not organised into paragraphs. The opening is uninteresting, and the plot unconvincing - two children go into space in a rocket, then wake up to find that it has all been a dream. There is little dialogue.
With HARRY’s assistance, Mollie’s writing improved considerably. The assisted story contains all the features expected of a successful story: an interesting opening, a series of events including a problem, a resolution and satisfying ending. The reader’s interest is immediately engaged with the story’s opening two sentences: ‘Tonight is a beautiful night to be looking out of the window. Not for Jane she is playing with her toy rocket’. The events are gradually unfolded: Jane is interested in space. Her parents take her to a space centre where she finds a UFO. The UFO takes her to a strange planet where she makes friends with an alien called Fluffy. However, Fluffy’s father, the King of the planet, is not pleased that his son has made friends with a human being. When Jane and Fluffy start to fly back to Earth together, the King sends his army of robots to stop them. The story ends with Jane and Fluffy managing to escape from the planet and return to Earth, whereupon Fluffy turns into a human boy. The story is sensitively told, well paced and organised into paragraphs, each containing a clear theme. Outer space is well described through adjectives and similes (for example, Space is as quiet as a mouse, it gleams like a shiny snake). Characterisation is made clear (for example, Jane has a huge imagination for a five-year-old girl; aliens are meant to be scary not to look like a fluffy bunny). Dialogue is interspersed between descriptions of events (for example, "AAAHHH! What are you?" "Eh I am a human being and why are you afraid of me?")

Mollie’s post test story, unlike her pre-test story, contains many of the features expected of a successful story. The story is more detailed with a plot that develops logically and which is now organised into paragraphs, each containing a theme. Mollie introduces the characters in the opening paragraph. Then the pirates find Captain Flint’s treasure map and go off to find his treasure. The story has a more satisfying ending than the pre-test story - the pirates end up so rich ‘they never mentioned treasure again’. Lively dialogue is interspersed between descriptions of events (for example, ‘So me lad’s what are you doing today?’). There are some descriptive phrases: a bundle of pirates, the jolly boat, Long John Silver the one legged man). Not all features were improved upon - like the pre-test story, the post test story lacks a complicating action or problem and has little description of the setting.

A summary of the whole text strengths and weaknesses in all three of Mollie’s stories is provided in Table 7.4. The ‘good’ features in each story are shaded. The features which are better in Mollie’s post test story when compared with her pre-test story are highlighted in blue.
Table 7.4 Comparison of whole text features for Mollie’s stories

<table>
<thead>
<tr>
<th>Theme</th>
<th>Feature</th>
<th>Pre-test story</th>
<th>Assisted story</th>
<th>Post test story</th>
</tr>
</thead>
<tbody>
<tr>
<td>Story structure</td>
<td>Paragraphs</td>
<td>Poor</td>
<td>Good</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>Plot</td>
<td>Poor</td>
<td>Good</td>
<td>Fair</td>
</tr>
<tr>
<td></td>
<td>Opening</td>
<td>Poor</td>
<td>Good</td>
<td>Fair</td>
</tr>
<tr>
<td></td>
<td>Ending</td>
<td>Poor</td>
<td>Good</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>Complication</td>
<td>Poor</td>
<td>Good</td>
<td>Poor</td>
</tr>
<tr>
<td>Character development</td>
<td>Personalities</td>
<td>Poor</td>
<td>Good</td>
<td>Fair</td>
</tr>
<tr>
<td></td>
<td>Dialogue</td>
<td>Fair</td>
<td>Good</td>
<td>Good</td>
</tr>
<tr>
<td>Use of literary devices</td>
<td>Setting</td>
<td>Poor</td>
<td>Good</td>
<td>Poor</td>
</tr>
<tr>
<td></td>
<td>Effects</td>
<td>Poor</td>
<td>Good</td>
<td>Fair</td>
</tr>
<tr>
<td></td>
<td>Theme</td>
<td>Poor</td>
<td>Good</td>
<td>Fair</td>
</tr>
</tbody>
</table>

7.2.2 Comparison of grammar and style features

The CHECK TEXT scores for all three of Mollie’s stories are presented in Table 7.4.

The scores reveal that Mollie’s weakness in her pre-test story is with punctuation and vocabulary. Her writing lacks full stops and commas (mean sentence length = 19.5 words, sentence to comma ratio = ∞). Her vocabulary lacks variety and sophistication (variety of words = 56%, words > 5 letters = 6.4%, basic verbs = 7.7%). Her scores for basic connectives are low (0.6%), suggesting sophisticated sentence structures. However, closer examination of the text reveals that she has used only two connectives in the entire story - 'and' and 'because'. Most of her sentences are in fact simple, without the need for connectives. In addition, Mollie uses a high proportion of simple sentence starters (62.5%). Mollie was well aware of one of her main grammar weaknesses: ‘Sometimes I’m not good at writing stories because I forget to put the punctuation in!’ she commented in the pre-test interview.

The CHECK TEXT scores reveal how, with HARRY’s assistance, Mollie improved on her choice of words (sophistication and variety) and punctuation (variety of words = 63%, words > 5 letters = 14.2%, basic verbs = 3.5%, mean sentence length = 13 words, sentence to comma ratio = 0.9). The worse scores and reports for common connectives (2.6% - 2.7%) suggest weaker sentence constructions. However, in Mollie’s case, they indicate a progression away from simple sentences towards compound and complex sentence constructions. In addition, she varied the way she started her sentences (simple sentence starters = 21.6%).
The CHECK TEXT scores indicate that Mollie has used some more sophisticated vocabulary in her post test story than in the pre-test (words > 5 letters improved by 3.8%, basic verbs decreased by 3.8%, although use of adverbs deteriorated by 1.9%). She has also started to use commas in her writing (sentence to comma ratio = 5). Although she has used more common connectives, the higher percentage (connective and = 2%, other connectives = 2.3%) indicates that she has used more sophisticated sentence structures than in her pre-test story. This is also suggested by the lower percentage of simple sentence starters (28.1% less). The post test scores for variety of words (58%), common words (8.3%), and full stops (mean sentence length = 20 words) are similar to the pre-test scores, indicating no improvement for these features.

A summary of the grammar and style strengths and weaknesses in all three of Mollie's stories is provided in Table 7.5. The poor, fair, good reports help to show whether changes in the scores indicate an improvement or deterioration in writing performance. All features awarded 'good' reports by CHECK TEXT are shaded. Scores which were better in Mollie's post test story when compared with her pre-test story are highlighted in blue. Worse scores are highlighted in yellow. N.B. Not all of the highlighted scores improved sufficiently to be awarded a better report.

Table 7.5 Comparison of grammar and style features for Mollie's stories

<table>
<thead>
<tr>
<th>Theme</th>
<th>Feature</th>
<th>Pre-test story</th>
<th>Assisted story</th>
<th>Post test story</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Score Report</td>
<td>Score Report</td>
<td>Score Report</td>
<td>Score Report</td>
</tr>
<tr>
<td>Whole Text</td>
<td>156 Poor</td>
<td>663 Good</td>
<td>633 Good</td>
<td></td>
</tr>
<tr>
<td>Words</td>
<td>Variety of words 56% Poor</td>
<td>63% Fair</td>
<td>58% Poor</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Basic verbs 7.7% Poor</td>
<td>3.5% Good</td>
<td>3.9% Good</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total common words 9% Fair</td>
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<td>8.3% Good</td>
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</tr>
<tr>
<td></td>
<td>Words &gt; 5 letters 6.4% Poor</td>
<td>14.2% Fair</td>
<td>10.2% Poor</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adverbs 3.2% Good</td>
<td>0.8% Fair</td>
<td>1.3% Fair</td>
<td></td>
</tr>
<tr>
<td>Sentence</td>
<td>Simple sentence starters 62.5% Poor</td>
<td>21.6% Good</td>
<td>34.4% Good</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Connective 'and' 9.8% Good</td>
<td>2.7% Fair</td>
<td>2% Good</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other basic connectives 0.6% Good</td>
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<td>2.3% Poor</td>
<td></td>
</tr>
<tr>
<td>Punctuation</td>
<td>Average sentence length</td>
<td>Mean sentence length (full stops)</td>
<td>Sentence to comma ratio</td>
<td>Good</td>
</tr>
<tr>
<td>----------------------</td>
<td>-------------------------</td>
<td>----------------------------------</td>
<td>-------------------------</td>
<td>------</td>
</tr>
<tr>
<td></td>
<td>19.5</td>
<td>19.5</td>
<td>0.9</td>
<td>20</td>
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</tbody>
</table>

### 7.2.3 Perceptions of writing ability and what makes a good story

Mollie said during the pre-test interview that she found writing stories easy *because it's in my imagination - the hard bit is writing it out*. However, it would seem that she also needed help with thinking of ideas because *when Mr Brown tells us what to write it makes me think of things*. She had a clear idea about what makes a story not very good - *'no punctuation'* and felt that putting *'some more punctuation in'* was all that was needed to improve her own story writing.

Mollie indicated that she felt that she had improved at writing during the study. She thought her HARRY assisted story was the best of the three stories because it has *'more adjectives, makes more sense and it's in paragraphs'* . She felt her post test story was not as good as the HARRY assisted, because *'I didn't have any help'* , but she thought that it was better than her pre-test story - *'I wasn't very good at story writing then [pointing to the pre-test story]. I thought of good ideas, but didn't do much writing'* . HARRY made quite an impression on Mollie. During the post test interview, Mollie revealed she had changed her ideas about what makes a *'good'* story *'good'* - *'lots of adjectives'* . She felt she had written differently with HARRY - she said she wrote *'more speech'* . When asked why she had not included much speech in her first story, she explained, *'I couldn’t think of any speech to put in the first story'* . In addition, she thought HARRY was trying to tell her to *'put more punctuation in, make it make more sense'* and that HARRY was *'trying to help with ideas and adjectives and similes'*. 
7.3 Nicole
Nicole chose the pirate theme for her first and HARRY assisted story and the space theme for her follow up story. Her stories are reproduced in full in Appendix B.11.

7.3.1 Comparison of whole text features
Nicole's pre-test story is generally very basic. The story starts with a good opening line consisting of dialogue: 'Aye Aye captain, that was the sound of ten lazy people or crew', although, as with the rest of her writing the dialogue is not punctuated with speech marks. The story ends similarly well - the reader is made aware that 'granny May' was telling the story to her grand children: 'She loved telling stories and I loved listening to them - well me and my brother Tom'. The story centres upon one event - a fight between two ships. However, the story is difficult to follow - the ideas are not fully explained, sentences are incomplete and although dialogue is used, it is not clear who is speaking. There is no description of the setting or the characters - the pirates are not named, although their ships are.

Nicole's assisted story starts in the same way as the pre-test story - with dialogue: 'Yo ho ho and a bottle of rum that was the crew singing a song in the middle of the sea'. However, with this story, Nicole then introduces the crew of the pirate ship by name and indicates their personalities. A more detailed and complicated plot than the pre-test story is gradually unfolded. The events are organised into paragraphs: after setting sail, a rival gang of pirates appear, but the crew are saved from attack through the quick action of Sandy who 'dived into the water and pulled the plug of the super super boat - they sank into the water'. The crew sail on, encountering a rough storm before they make it to an island. The crew think that a shark is about to attack, but the shark turns out to be a dolphin. On the island, the pirates meet an old man who tells them that there is treasure buried somewhere and the pirates agree to help the man find it. They have to search hard to find the treasure, but when they do, they share it with the old man. The story ends with a succinct final comment, 'Sandy Steve Captain Calvin rowed the old boat back home in the sunset, with their treasure'. Unlike the pre-test story, the assisted story contains descriptive phrases, like 'the hot boiling sun, a long circle around the island, Sandy was shocked in excitement' and literary effects, such as alliteration 'floundering flatfish', and similes 'the island was ... big ... like America and Spain put together'.

Nicole's post test story is better than her pre-test story on two whole text features: she has divided her story into three paragraphs, each containing a theme and she indicates her characters' personalities. In the first paragraph, she introduces her characters by name and
describes their appearance, for example 'here is a picture of Robert, he has brown hair and blue eyes'. She describes how the characters feel about going into space in the second paragraph, 'well it's scary but I haven't been nervous'. In her third paragraph, Nicole describes the characters twelve year journey to Mars. As with the pre-test story, dialogue is used, and similarly, it is not clear who is speaking. Only one event is described (the journey to Mars) and the setting is not described. It appears that Nicole simply ended her post test story when she ran out of ideas, making it a worse ending than in the pre-test story.

A summary of the whole text strengths and weaknesses in all three of Nicole's stories is provided in Table 7.6. The 'good' features in each story are shaded. The features which are better and worse in Nicole's post test story when compared with her pre-test story are highlighted in blue and yellow.

Table 7.6 Comparison of whole text features for Nicole's stories

<table>
<thead>
<tr>
<th>Theme</th>
<th>Feature</th>
<th>Pre-test story</th>
<th>Assisted story</th>
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<tr>
<td>Story structure</td>
<td>Paragraphs</td>
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<td>Good</td>
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<tr>
<td></td>
<td>Plot</td>
<td>Poor</td>
<td>Fair</td>
<td>Poor</td>
</tr>
<tr>
<td></td>
<td>Opening</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td></td>
<td>Ending</td>
<td>Fair</td>
<td>Fair</td>
<td>Poor</td>
</tr>
<tr>
<td></td>
<td>Complication</td>
<td>Poor</td>
<td>Fair</td>
<td>Poor</td>
</tr>
<tr>
<td>Character development</td>
<td>Personalities</td>
<td>Poor</td>
<td>Fair</td>
<td>Fair</td>
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<tr>
<td></td>
<td>Dialogue</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td>Use of literary devices</td>
<td>Setting</td>
<td>Poor</td>
<td>Fair</td>
<td>Poor</td>
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<td>Poor</td>
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<tr>
<td></td>
<td>Theme</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
</tr>
</tbody>
</table>

7.3.2 Comparison of grammar and style features

The CHECK TEXT scores for all three of Nicole's stories are presented in Table 7.6.

The CHECK TEXT scores reveal that Nicole's pre-test story is poorly punctuated (mean sentence length = 18.8 words, sentence to comma ratio = 4.7) and that her vocabulary and sentence constructions are fairly basic (variety of words = 66%, common words = 11.2%, adverbs = 0.6%, words > 5 letters = 13.6%, simple sentence starters = 55.6%, connective and = 4.1%). The total number of words (169 words) indicates that her story is short and lacking in detail.
The CHECK TEXT scores reveal that HARRY helped Nicole to improve her sentence constructions (simple sentence starters = 30%, connective and = 2.1%) and comma use considerably (sentence to comma ratio = 0.7) and make some improvement with vocabulary (common words = 9.8%, adverbs = 1.5%) and use of punctuation (mean sentence length = 15.1 words, sentence to comma ratio = 0.7). The total number of words (605 words) indicates that HARRY helped her to write a considerably longer and more detailed story.

The CHECK TEXT scores indicate that Nicole's vocabulary in her post test story is much more varied and sophisticated than in her pre-test story (variety of words = 7% more, common words = 6.4% less, words > 5 letters = 3.2% more). She has also improved her sentence constructions - she relies less upon the connective 'and' (connective and = 3% less) and varies the way she starts her sentences more (simple sentence starters = 34.2% less). Her writing continues to lack full stops (mean sentence length = 19.5 words), but she uses commas more frequently (sentence to comma ratio = 2.2). Her post test story is approximately 100 words longer than her pre-test, suggesting that she has written in more detail.

A summary of the grammar and style strengths and weaknesses in all three of Nicole's stories is provided in Table 7.7. The poor, fair, good reports help to show whether changes in the scores indicate an improvement or deterioration in writing performance. All features awarded 'good' reports by CHECK TEXT are shaded. The scores which are better in Nicole's post test story when compared with her pre-test story are highlighted in blue. N.B. Not all of the highlighted scores improved sufficiently to be awarded a better report.

Table 7.7 Comparison of grammar and style features for Nicole's stories

<table>
<thead>
<tr>
<th>Theme</th>
<th>Feature</th>
<th>Pre-test story</th>
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<th>Post test story</th>
</tr>
</thead>
<tbody>
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<td></td>
<td></td>
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<td>Report</td>
<td>Score</td>
</tr>
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<td>Whole Text</td>
<td>Total no. of words</td>
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<td>Poor</td>
<td>605</td>
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<td>6.6%</td>
</tr>
<tr>
<td></td>
<td>Total common words</td>
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<td>Fair</td>
<td>9.8%</td>
</tr>
<tr>
<td></td>
<td>Words &gt; 5 letters</td>
<td>13.6%</td>
<td>Fair</td>
<td>13.7%</td>
</tr>
<tr>
<td></td>
<td>Adverbs</td>
<td>0.6%</td>
<td>Poor</td>
<td>1.5%</td>
</tr>
</tbody>
</table>
### Perceptions of writing ability and what makes a good story

When asked about her writing ability during the pre-test interview, Nicole said she did not think that she was good at writing stories 'because I don't do descriptive writing'. She said she found writing some stories easier than others - 'it depends what it's about - I liked writing the pirate story, but I wouldn't have liked the space story'. To make her stories better she thought she ought to 'put more adjectives and adverbs in and don't make my stories boring by just writing about one thing'. She had clear ideas for how to write a good story - write a 'good description and lots of different things happening'. Nicole suggested that 'droning on, no good words or no questions at the beginning that make you want to read on' would make a story not very good. Although Nicole appeared to know how to write better, she did not seem able to put her knowledge into practice - her pre-test story lacked events, descriptions, and 'good' words.

Using HARRY appeared to increase Nicole's confidence in her ability to write a story. She chose the space story theme for her post test story - the very theme she had identified as being the hardest theme to write about in the pre-test interview. After Nicole had written the first paragraph of her post test story she spontaneously commented: 'You know that first story I wrote, I think I've improved since then'. At that stage of her story, she knew what she wanted to write about. She commented that she had written the introduction and next she planned to write about the characters feelings explaining that this was what HARRY had said to write about in the pirate story. She thought it would be easiest to pretend that they were being interviewed about going into space on a television programme. Although she made a good start to writing her story, by the third paragraph she seemed to be stuck for ideas. She asked, 'Can Mollie and I ask each other things?'
During the post test interview, Nicole revealed she knew more about how to write a good story than she had during the pre-test interview. As well as having 'lots of adjectives', she explained that a good story has 'paragraphs - they don't try to do the story all in one go!' She felt that these features helped make her HARRY assisted story the best - 'because I've used more good things, like paragraphs and good words - floundering flatfish made the story better - funny - and I liked the ending - they go back in the sunset'. Nicole demonstrated that she had learned some ways of improving her story writing from HARRY. With HARRY's assistance 'my words were a lot better, more laughable, not boring'. HARRY told me 'how to start really good because I usually just wrote anything, and a good ending - the sunset'.

7.4 Charlotte

Charlotte chose the space theme for her first and HARRY assisted story and the wood theme for her follow up story. Her stories are reproduced in full in Appendix B.12.

7.4.1 Comparison of whole text features

During her pre-test interview, Charlotte explained how she usually went about writing a story - 'I think of some stories I know of and think how they do it.' Charlotte's pre-test story is clearly an adaptation of a picture book written for pre-school children - 'Whatever Next!' by Jill Murphy - and is written in a similar gentle style. Like the bear in the picture book, Tom puts on some wellies and a hat before flying up the chimney into space in a box. Tom meets an owl called Tod on the moon and they eat lunch together. Afterwards, Tom and Tod return home down the chimney. Mum greets them and tells them to have a bath. The story lacks detail, setting and character descriptions, literary effects and is not organised into paragraphs. The opening and ending are basic storybook constructions -'One day' and 'they lived happily ever after.' There is some dialogue although it is not punctuated with speech marks.

With HARRY's assistance, Charlotte wrote an original story with a much more detailed plot which included a complication, and events organised into paragraphs each containing a theme. Much of the story is explained through dialogue which is punctuated with speech marks. The story starts in a space centre (a place that Charlotte said she had visited). Charlotte begins her story with a description of the scene, 'At the space centre, there is an enormously huge spaceship it was red ... Madelyn could hear a vibrating noise'. Madelyn meets another girl (Kelly) inside the spaceship. The spaceship suddenly takes off and the girls find themselves in another land. Some attempt has been made to describe space using a simile, 'bright stars glistened like the morning sun at night'. At first, the people in 'sweet land' appear to be friendly, but then suddenly, the girls find themselves trapped in a cage on
'planet evil' by a monster who wants to eat them for dinner. They manage to escape by throwing a bomb, which they believe, kills the monster, and return back to the space centre in their spaceship and find their mums, who in the meantime, had been worried about them. The story ends with an aside to the reader - ‘Madelyn went to Kelly's house, they looked in to the sky they could still hear, the monster!’

Charlotte's post test story is better than her pre-test story on four whole text features: the story includes a complication, is divided into clear paragraphs, the character's personalities are indicated and much of the plot is developed through dialogue which is punctuated with speech marks. The plot unfolds in a similar way to her HARRY assisted story. Two children - Kate and Ben - decide to build a tree house. They stay in the tree house all day. Suddenly, zombies appear and tie them up. Kate manages to free them by cutting the ropes and Ben throws food at them. However, several features of the post test story are similar to the pre-test. The story starts in the same basic way - 'Once upon a time...' The ending is similarly basic, 'the zombies ran away and never came back'. As with the pre-test story, the setting is not described and the writing lacks literary techniques.

A summary of the whole text strengths and weaknesses in all three of Charlotte's stories is provided in Table 7.8. The 'good' features in each story are shaded. The features which are better in Charlotte's post test story when compared with her pre-test story are highlighted in blue.

Table 7.8 Comparison of whole text features for Charlotte's stories

<table>
<thead>
<tr>
<th>Theme</th>
<th>Feature</th>
<th>Pre-test story</th>
<th>Assisted story</th>
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<td>Good</td>
</tr>
<tr>
<td></td>
<td>Plot</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td></td>
<td>Opening</td>
<td>Poor</td>
<td>Poor</td>
<td>Poor</td>
</tr>
<tr>
<td></td>
<td>Ending</td>
<td>Poor</td>
<td>Fair</td>
<td>Poor</td>
</tr>
<tr>
<td></td>
<td>Complication</td>
<td>Poor</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td>Character development</td>
<td>Personalities</td>
<td>Poor</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td></td>
<td>Dialogue</td>
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<td>Use of literary devices</td>
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<td>Theme</td>
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<td>Fair</td>
</tr>
</tbody>
</table>
7.4.2 Comparison of grammar and style features

The CHECK TEXT scores for all three of Charlotte's stories are presented in Table 7.8.

The scores for her pre-test story reveal that Charlotte is accurate with full stops (mean sentence length = 9.6 words), but that she does not use commas at all. Her vocabulary lacks variety and sophistication (variety of words = 53%, common words = 18.6%, words > 5 letters = 5.4%). She uses a very high proportion of simple words and few long words. Charlotte relies on the connective 'and' (5.4%), suggesting a predominance of simple compound sentence constructions, but she varies the way she starts them (simple sentence starters = 8.7%).

The CHECK TEXT scores for Charlotte's assisted story reveal considerable improvements were made with vocabulary (variety and sophistication) and sentence construction with HARRY's help (variety = 63%, common words = 5%, words > 5 letters = 14.2%, adverbs = 4%). As with her pre-test story, she punctuates her writing accurately with full stops (mean sentence length = 9.1 words), but with HARRY, she uses commas to demarcate clauses (sentence to comma ratio = 0.6).

A comparison of the CHECK TEXT scores for the post test and pre-test stories reveals improvements have been made to vocabulary - variety and sophistication (variety of words = 9% more, common words decreased by 7.9%, words > 5 letters increased by 6%). Charlotte used fewer common connectives in her post test story than in her pre-test (connective and decreased by 1.9%, common connectives decreased by 1.2%) and punctuated some clauses within complex sentences with commas (sentence to comma ratio = 2.7). Her post test story is approximately 100 words longer than her pre-test story, which suggests she has written in more detail.

A summary of the grammar and style strengths and weaknesses in all three of Charlotte's stories is provided in Table 7.9. The poor, fair, good reports help to show whether changes in the scores indicate an improvement or deterioration in writing performance. All features awarded 'good' reports by CHECK TEXT are shaded. The scores which are better in Charlotte's post test story when compared with her pre-test story are highlighted in blue. N.B. Not all of the highlighted scores improved sufficiently to be awarded a better report.
Table 7.9 Comparison of grammar and style features for Charlotte’s stories

<table>
<thead>
<tr>
<th>Theme</th>
<th>Feature</th>
<th>Pre-test story</th>
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<th>Post test story</th>
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<td>Score</td>
<td>Report</td>
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<td>Basic verbs</td>
<td>11.3%</td>
<td>2.2%</td>
<td>Poor</td>
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<td>Poor</td>
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</tr>
<tr>
<td></td>
<td>Connective 'and'</td>
<td>5.4%</td>
<td>2.6%</td>
<td>Poor</td>
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<td>Other basic connectives</td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Average sentence length</td>
<td>9.6%</td>
<td>9.1</td>
<td>Fair</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Punctuation</td>
<td>Mean sentence length (full stops)</td>
<td>9.6</td>
<td>9.1</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sentence to comma ratio</td>
<td>$\propto$</td>
<td>0.5</td>
<td>Poor</td>
</tr>
</tbody>
</table>

7.2.3 Perceptions of writing ability and what makes a good story

When asked about her writing ability during the pre-test interview, Charlotte said she did not think that she was good at writing stories 'because I don't put that many adjectives in' and that she needed to 'put more adjectives' in to improve her writing. She said she found writing some stories easier than others - 'it depends on the subject - the wood story would have been hard to do'. She had clear ideas about what makes stories good - 'longer ones, ones that have a big adventure, ones that describe things quite a lot. A boring short story [would not be a very good story] where it's just an adventure in their house, they don't go anywhere'.

Like Nicole, using HARRY appeared to increase Charlotte's confidence in her ability to write a story successfully. She chose the wood story theme for her post test story - the very theme she had identified as being the hardest theme to write about in the pre-test interview. She felt she had improved at writing during the study. She said her best story was the assisted one because 'it tells you what the Mums are doing, goes to two planets and has a
little bit of action. I didn't just use 'said' all the time - I used more different words'. She thought her post test story was not as good as the assisted one because 'I didn't do a very good ending, it wasn't very realistic, I used quite a lot of 'said', 'begged' and 'cried'. However, she felt her post test story was better than her pre-test - 'My first one wasn't very good cos it's not that long and it's a bit fairytale-ish'.

During the post test interview, Charlotte revealed she knew far more about how to write a good story than she had during the pre-test interview. She said that what makes a good story good is to 'have a bit of action, make it interesting by not keep using 'and' and not keep putting long sentences and make sure you put quite a lot of detail in it so that people can imagine it in their head'. Charlotte demonstrated that she had learned an important way of improving her story writing from HARRY - 'add more detail.' The CHECK TEXT scores discussed in the previous section revealed that her post story was more detailed than her pre-test. She felt she had written differently with HARRY - 'I put a lot more interesting words in from the word box and instead of just putting a boring ending, when the sentences came, it gave me some good ideas for how to put a different ending'. Asked what she thought HARRY was trying to tell her about story writing, she replied, 'you need to give more interesting words, don't use said all the time and try not to use a word more than once in a sentence'.

7.5 Ricky

Ricky chose the space theme for his first and HARRY assisted story and the pirate theme for his follow up story. His stories are reproduced in full in Appendix B.13.

7.5.1 Comparison of whole text features

Ricky's pre-test story contains many successful features: the story is exciting, and the events progress logically. The narrator of the story spends his lottery winnings on funding an inventor's rocket. He goes on a voyage into space, returning safely just before the spaceship smashes 'into smithereens'. Dialogue is interspersed through the description of events (for example, This is ground control do you read me?" crackled the transmitter'. The setting is described with adjectives and similes (for example, how weightless it was, the thin cold air ... the stars like burning balls of flame'. The opening is functional: 'Hello, I am going to tell you about the trip of my life in space!' The story ends with an aside to the reader, 'I was famous people said but I was just glad I had still got my life!'. The story lacks character descriptions and would have been improved if it had included more detail, especially concerning the
complicating action - how the spaceship was nearly broken on re-entry to the ozone layer, almost 'sending me to my death'.

Ricky's assisted story is much more successful than his pre-test. The story starts with an interesting opening designed to catch the reader's immediate attention: 'BANG!' The rocket that Professor Crazy had been trying to make, for centuries it felt like, exploded'. The remainder of the opening paragraph describes the rocket. Ricky uses adjectival expansion (the rocket gleamed in the sun, with its polished red tail fins, the carbonated steel glimmered, broken patches here and there), similes (towering over you like a giant, it felt like the rocket was alive) and a metaphor (the towering peak). An exciting story is gradually unfolded which is organised into paragraphs on a theme. The launch of the two friends into space is described with more similes. Whilst in space, they discover an alien city and meet with a friendly alien called Cozo. The friends steal the 'energy crystal' from the alien city and inadvertently start a war between Earth and the alien planet. On their way home, they discover Cozo is on their spaceship. Cozo warns them that his planet will attack Earth in retaliation. The aliens launch a major attack, but when they find themselves outnumbered by the local army, they retreat. The story ends effectively: 'Professor Crazy, Smashley and Ricky stared into the moonlit sky where stars twinkle like candles on a cake. Each of them was thinking, 'I wonder if there is any more life out there?'' All of them wanted to be the first to see it'.

Ricky's post test story is more successful than his pre-test story on eight features: it contains paragraphs, more detailed events, describes the setting, has a more effective opening and ending, a twist in the tale, characterisation including more effective use of dialogue and the story contains a clear theme concerning the dangers of rivalry. The story begins well, 'It all started when Captain Cuttle Fish, Fish for short, started a pirate band'. Ricky then goes on to explain the personalities of Captain Cuttle Fish and Captain Sea Dog, commenting on the rivalry between them. The scene is set with one of the captains announcing "Aye I can't find me treasure map of Treasure Island. I knows it be round 'ere somewhere!" cried Fish. The events of the story are gradually unfolded, organised into paragraphs. The rival pirate captains are after the same treasure. After a 'long and bloody fight', both pirate gangs set sail for the island where the treasure is buried. There is a twist in the tale. Fish's gang appear to find the treasure first, but when they open 'the rusty old treasure chest' they discover that it is empty. Dog's gang have stolen it and are hiding in the bushes waiting to ambush Fish's gang. The situation is resolved - 'Dog finally got hacked down by Fish at that battle and lost his life then his treasure because he wouldn't give up and join forces with
'Fish'. The story ends with an aside to the reader: 'they lived forever more untroubled, until the navy found out their old secret of their riches!'

A summary of the whole text strengths and weaknesses in all three of Ricky's stories is provided in Table 7.10. The 'good' features in each story are shaded.

Table 7.10 Comparison of whole text features for Ricky's stories

<table>
<thead>
<tr>
<th>Theme</th>
<th>Feature</th>
<th>Pre-test story</th>
<th>Assisted story</th>
<th>Post test story</th>
</tr>
</thead>
<tbody>
<tr>
<td>Story structure</td>
<td>Paragraphs</td>
<td>Poor</td>
<td>Good</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>Plot</td>
<td>Fair</td>
<td>Good</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>Opening</td>
<td>Fair</td>
<td>Good</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>Ending</td>
<td>Fair</td>
<td>Good</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>Complication</td>
<td>Fair</td>
<td>Good</td>
<td>Good</td>
</tr>
<tr>
<td>Character development</td>
<td>Personalities</td>
<td>Poor</td>
<td>Fair</td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>Dialogue</td>
<td>Good</td>
<td>Good</td>
<td>Good</td>
</tr>
<tr>
<td>Use of literary devices</td>
<td>Setting</td>
<td>Fair</td>
<td>Good</td>
<td>Fair</td>
</tr>
<tr>
<td></td>
<td>Effects</td>
<td>Fair</td>
<td>Good</td>
<td>Fair</td>
</tr>
<tr>
<td></td>
<td>Theme</td>
<td>Fair</td>
<td>Good</td>
<td>Good</td>
</tr>
</tbody>
</table>

7.5.2 Comparison of grammar and style features

The CHECK TEXT scores for all three of Ricky's stories are presented in Table 7.11.

The scores for his pre-test story reveal that Ricky's strength is with sentence construction. He writes using simple, compound and complex constructions, which he punctuates fairly accurately with full stops and some commas (simple sentence starters = 40%, connective and = 0.9%, mean sentence length = 15.9 words, sentence to comma ratio = 5.3). He uses some adventurous and sophisticated vocabulary, particularly verbs (variety of words = 67%, common words = 9.1%, basic verbs = 4.1%, adverbs = 0.9%), but relies heavily upon basic connectives (4.1%).

The CHECK TEXT scores for Ricky's assisted story reveal that HARRY helped Ricky to use more sophisticated vocabulary and sentence constructions, and to punctuate his writing more accurately (basic verbs = 5.7%, words > 5 letters = 18.2%, adverbs = 1.9%, simple sentence starters = 17.3%, basic connectives = 1.1%, mean sentence length = 11.1 words, sentence to comma ratio = 0.3). The only slight weaknesses detected were that the story lacked a variety of words (variety of words = 62%) and many of the sentences were short (average sentence length = 11.1 words).
The CHECK TEXT scores for Ricky's post test story compared with his pre-test story indicate that improvements were made for six features: total number of words (167 more words), variety of words (6% more), basic verbs (1% less), words longer than five letters (2.1% more), simple sentence starters (30.6% less) and comma use (sentence to comma ratio improved to 1.2). However, one feature deteriorated - use of the connective 'and' (3.4% worse). The scores suggest that Ricky's post test story is more detailed and contains more sophisticated and varied vocabulary. Sentence constructions are also more varied and he punctuates the clauses in complex sentences more frequently with commas.

A summary of the grammar and style strengths and weaknesses in all three of Ricky's stories is provided in Table 7.11. The poor, fair, good reports help to show whether changes in the scores indicate an improvement or deterioration in writing performance. All features awarded "good" reports by CHECK TEXT are shaded. The better scores for the final draft of the assisted story compared with the control are highlighted in blue and the worse scores in yellow. N.B. Not all of the highlighted scores improved sufficiently to be awarded a better report.

Table 7.11 Comparison of grammar and style features for Ricky's stories

<table>
<thead>
<tr>
<th>Theme</th>
<th>Feature</th>
<th>Pre-test story</th>
<th>Assisted story</th>
<th>Post test story</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whole Text</td>
<td>Total no. of words</td>
<td>317 Fair</td>
<td>906 Good</td>
<td>464 Good</td>
</tr>
<tr>
<td>Words</td>
<td>Variety of words</td>
<td>67% Fair</td>
<td>62% Fair</td>
<td>73% Good</td>
</tr>
<tr>
<td></td>
<td>Basic verbs</td>
<td>4.1% Good</td>
<td>2.7% Good</td>
<td>3.1% Good</td>
</tr>
<tr>
<td></td>
<td>Total common words</td>
<td>9.1% Fair</td>
<td>5.7% Good</td>
<td>9.5% Fair</td>
</tr>
<tr>
<td></td>
<td>Words &gt; 5 letters</td>
<td>15.5% Fair</td>
<td>18.2% Good</td>
<td>17.6% Good</td>
</tr>
<tr>
<td></td>
<td>Adverbs</td>
<td>0.9% Fair</td>
<td>1.9% Good</td>
<td>0.6% Fair</td>
</tr>
<tr>
<td>Sentence</td>
<td>Simple sentence starters</td>
<td>40% Fair</td>
<td>17.3% Good</td>
<td>9.4% Good</td>
</tr>
<tr>
<td></td>
<td>Connective 'and'</td>
<td>0.3% Good</td>
<td>1.9% Good</td>
<td>4.3% Fair</td>
</tr>
<tr>
<td></td>
<td>Other basic connectives</td>
<td>4.1% Poor</td>
<td>1.1% Good</td>
<td>2.1% Poor</td>
</tr>
<tr>
<td></td>
<td>Average sentence length</td>
<td>15.9 Fair</td>
<td>11.1 Fair</td>
<td>15.1 Fair</td>
</tr>
<tr>
<td>Punctuation</td>
<td>Mean sentence length (full stops)</td>
<td>15.9 Fair</td>
<td>11.1 Fair</td>
<td>15.1 Fair</td>
</tr>
</tbody>
</table>

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7.5.3 Perceptions of writing ability and what makes a good story

Ricky said in the pre-test interview he thought he was generally good at writing stories - 'I'm good at writing stories if I like the subject'. He said he usually found starting a story difficult, 'but once I get in the flow, I can do it really easily'. Ricky felt that he usually did well at 'raising suspense', but that he should use 'more describing words' to make his stories better. He explained the difference between good and not very good stories as: a good story is 'one that gives a good picture in your head and it's got to be interesting. If you just put in a story - He went to town. He bought a bey blade. He took it home. It's boring and sends me to sleep'.

Ricky believed that he had improved at story writing during the study. He thought that his best story was the assisted story 'because I had lots of help, it's longer, there's more writing. I had to use good descriptions and put similes in'. He felt that his pre-test story was the worst 'because it's not in paragraphs, it's all welded in together'. He thought his post test story was better than the pre-test because it was organised into 'paragraphs - there's an opening paragraph introducing what's going to happen in the story, some events, something unexpected (no treasure!) and an ending'.

Ricky demonstrated that he had learned a way of improving his story writing from HARRY - 'it's got to have a good opening, it's got to be interesting and have an interesting first sentence'. A story would not be very good if 'it's got a boring opening'. He also elaborated slightly on his pre-test answer for what would make a story not very good 'if everything is simple - sentences and words, like Ricky went into space. He met an alien. He went home for tea'. Ricky felt that he had written differently with HARRY's assistance 'He made me cut down on some words like 'but', and, 'as'. I used better words like galaxy instead of space'. Asked what he thought HARRY was trying to tell him about story writing, he replied, 'if you use too many of the same words then it gets a bit boring and if you're describing something use describing words or a simile'.
7.6 Andrew

Andrew chose the pirate theme for his first and HARRY assisted story and the wood theme for his follow up story. His stories are reproduced in full in Appendix B.14.

7.6.1 Comparison of whole text features

Andrew's pre-test story is basic. After a very simple opening - 'One day ...' Andrew relates two events in quick succession: a sailor walks the plank and the Captain is struck by lightning and then is pushed off the ship by the other pirates. The main event is described in more detail: there is an encounter with a three-headed dragon who overturns the pirate's ship. The pirates start to swim to an island and the story ends with the reader being made aware that one of the pirate's cannot swim and is likely to drown. There is some description of the characters and the setting: Captain Blackbeard 'was old and crinkled, the three-headed dragon is 'fire breathing and has a vicious tail smack', and when the dragon attacked, 'the ship started to shake'. There is some dialogue, but it is not punctuated with speech marks, nor is it clear who is speaking. The story is not organised into paragraphs.

Andrew's HARRY assisted story is only slightly better than his pre-test story. The story is organised into six paragraphs, however the events are mostly difficult to follow. The first two paragraphs describe how two royal commandos are taking a submarine out to sea in order to discover a shark. There is some description of the shark ('it is the strongest shark ever known, Meglowdon jaws are so strong, that it could crush a meteor') and the submarine ('The sub has anti locking missiles').

In the following four paragraphs, some pirates are under attack and the event is described in detail over two paragraphs:

'Canons were fired ... right now people were leaping over board ... flame throwers spat out flames, people were badly burnt ... one of the bloodthirsty gang slashed the other pirate's trousers down and they started to fight. Everyone was laughing'.

A submarine then appears and fires nuclear missiles. It is not clear whether this is the same submarine as the one described at the beginning of the story.

In the final two paragraphs, Andrew describes an attack by sea scorpions and how a fire starts in the cooks' room. There is a satisfactory ending - the commander is rescued and the ship is welcomed home in the harbour. As with the pre-test story there is some dialogue, but it is not punctuated with speech marks.
Andrew's post test story is similar to his pre-test overall. The post test has a better ending and a more detailed complication, but characterisation is worse. As with the pre-test story, there is a simple opening - 'One afternoon ...' Several events are related, but, like the pre-test, the story is not organised into paragraphs. Some children make a secret club house in the woods and stay the night in it. There is however, a complication: the following day a pack of grizzly bears attack and the children use weapons such as swords, a bow and arrow and a sniper rifle. There is also a resolution: a baby bear is injured and the children take the bear into the club house to heal it. There is some description of the setting ('the night came it got extremely dark ... it was very spooky ... the wind was very strong ... a enormous growling noise appeared ... the growling got louder'). Characterisation is not made clear, unlike with the pre-test story - the characters are referred to simply as 'kids' at the start of the story, but are given names nearer the end. The post test story lacks any dialogue.

A summary of the whole text strengths and weaknesses in all three of Andrew's stories is provided in Table 7.12. The 'good' features in each story are shaded. The features which were better in Andrew's post test story when compared with his pre-test story are highlighted in blue and worse features in yellow.

Table 7.14 Comparison of whole text features for Andrew's stories

<table>
<thead>
<tr>
<th>Theme</th>
<th>Feature</th>
<th>Pre-test story</th>
<th>Assisted story</th>
<th>Post test story</th>
</tr>
</thead>
<tbody>
<tr>
<td>Story structure</td>
<td>Paragraphs</td>
<td>Poor</td>
<td>Good</td>
<td>Poor</td>
</tr>
<tr>
<td></td>
<td>Plot</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td></td>
<td>Opening</td>
<td>Poor</td>
<td>Fair</td>
<td>Poor</td>
</tr>
<tr>
<td></td>
<td>Ending</td>
<td>Poor</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td></td>
<td>Complication</td>
<td>Poor</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td>Character development</td>
<td>Personalities</td>
<td>Fair</td>
<td>Fair</td>
<td>Poor</td>
</tr>
<tr>
<td></td>
<td>Dialogue</td>
<td>Fair</td>
<td>Fair</td>
<td>Poor</td>
</tr>
<tr>
<td>Use of literary devices</td>
<td>Setting</td>
<td>Poor</td>
<td>Fair</td>
<td>Fair</td>
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<td></td>
<td>Effects</td>
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<td>Poor</td>
</tr>
<tr>
<td></td>
<td>Theme</td>
<td>Poor</td>
<td>Poor</td>
<td>Poor</td>
</tr>
</tbody>
</table>

7.6.2 Comparison of grammar and style features

The CHECK TEXT scores for all three of Andrew's stories are presented in Table 7.15.

The scores for his pre-test story reveal that Andrew's strength is that he does not rely on common connectives (connective and = 2.1%, other basic connectives = 0.8%). Andrew does not write in much detail (total number of words = 243), does not vary his words (variety
of words = 60%) or use many adventurous words (words > 5 letters = 14.4%, adverbs = 0.8%). His main weakness is with punctuation - his writing lacks commas and full stops (mean sentence length = 60.8 words, sentence to comma ratio = 10.1).

The CHECK TEXT scores demonstrate that Andrew improved slightly upon many features when he received assistance from HARRY. He writes in more detail (total number of words = 471), using more adventurous words (words > 5 letters = 16.3%, adverbs = 1.7%). He used a much greater variety of sentence constructions (simple sentence starters = 27%) and punctuates his writing much more accurately with commas and full stops (mean sentence length = 12.7 words, sentence to comma ratio = 0.7).

The CHECK TEXT scores for Andrew's post test story indicate that his writing is more accurately punctuated with full stops and commas than the pre-test story - he used almost twice as many full stops and sentence to comma ratio improved to 3.7. Andrew also uses more adventurous words (words > 5 letters = 2.8% better). However, he also uses more basic words (basic verbs = 1.4% worse), his vocabulary is less varied (variety of words = 4% less) and he uses pronouns more frequently to start his sentences (simple sentence starters = 16.7% worse). The story is a similar length to the pre-test (267 words).

A summary of the grammar and style strengths and weaknesses in all three of Andrew's stories is provided in Table 7.15. The poor, fair, good reports help to show whether changes in the scores indicate an improvement or deterioration in writing performance. All features awarded 'good' reports by CHECK TEXT are shaded. The better scores for the final draft of the assisted story compared with the control are highlighted in blue and worse scores in yellow. N.B. Not all of the highlighted scores improved sufficiently to be awarded a better report.

Table 7.15 Comparison of grammar and style features for Andrew's stories

<table>
<thead>
<tr>
<th>Theme</th>
<th>Feature</th>
<th>Pre-test story</th>
<th>Assisted story</th>
<th>Post test story</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Score</td>
<td>Report</td>
<td>Score</td>
<td>Report</td>
</tr>
<tr>
<td>Whole Text</td>
<td>Total no. of words</td>
<td>243 Poor</td>
<td>471 Good</td>
<td>267 Poor</td>
</tr>
<tr>
<td>Words</td>
<td>Variety of words</td>
<td>60% Poor</td>
<td>61% Fair</td>
<td>56% Poor</td>
</tr>
<tr>
<td></td>
<td>Basic verbs</td>
<td>5.3% Fair</td>
<td>4.5% Fair</td>
<td>6.7% Poor</td>
</tr>
<tr>
<td></td>
<td>Total common words</td>
<td>6.2% Good</td>
<td>8.1% Good</td>
<td>9% Fair</td>
</tr>
</tbody>
</table>
Andrew said during the pre-test interview that he was good at writing stories 'because I like to put action and loads of gore in it'. He found writing stories easy - 'all you need to do is think of some sentences and put them together'. He showed an awareness of his own particular weaknesses when he said that he needed to 'put more punctuation and speech in' his stories to improve them. Andrew thought that to make a story 'good' he should put in 'loads of action like sea monsters' and that a poor story is one without 'enough action or speech'.

Andrew felt that he had improved at writing during the study. He thought that his HARRY assisted story was his best, but not because it was better quality - 'it's a shark one and I'm a shark fan'. He said his post test story was better than his pre-test for the same reason - because 'it's got animals - grizzly bears in it'. Andrew thought that HARRY had helped him write differently to usual because 'I thought of more ideas and lots of action' and that HARRY was 'trying to tell you what to do - how to start your story and the boxes had ideas for what to use'. However, Andrew did not appear to internalise any of HARRY's advice. He expressed the same view of what makes a 'good' story at the post test interview as he had during the pre-test. He believed that a 'good' story was one that had 'loads of action and punctuation and animals in it' - almost the same answer he gave during the pre-test interview.

7.7.3 Perceptions of writing ability and what makes a good story

Andrew said during the pre-test interview that he was good at writing stories 'because I like to put action and loads of gore in it'. He found writing stories easy - 'all you need to do is think of some sentences and put them together'. He showed an awareness of his own particular weaknesses when he said that he needed to 'put more punctuation and speech in' his stories to improve them. Andrew thought that to make a story 'good' he should put in 'loads of action like sea monsters' and that a poor story is one without 'enough action or speech'.

Andrew felt that he had improved at writing during the study. He thought that his HARRY assisted story was his best, but not because it was better quality - 'it's a shark one and I'm a shark fan'. He said his post test story was better than his pre-test for the same reason - because 'it's got animals - grizzly bears in it'. Andrew thought that HARRY had helped him write differently to usual because 'I thought of more ideas and lots of action' and that HARRY was 'trying to tell you what to do - how to start your story and the boxes had ideas for what to use'. However, Andrew did not appear to internalise any of HARRY's advice. He expressed the same view of what makes a 'good' story at the post test interview as he had during the pre-test. He believed that a 'good' story was one that had 'loads of action and punctuation and animals in it' - almost the same answer he gave during the pre-test interview.
7.7 Demi

Demi chose the wood theme for her pre-test and assisted stories and pirates for her post test. Her stories are reproduced in full in Appendix B.15.

7.7.1 Comparison of whole text features

Demi's pre-test story is very basic. It features a simple opening and ending device ('One day ... and lived happily ever after'). In between, Demi relates a simple chain of events - two girls find themselves lost in the woods. They find a house belonging to their friend. There is a complication - the two girls are shot at because their friend thought they were robbers. The story ends with the friend's mum showing the two girls the way home. There are some good phrases, such as 'Lily and Bethany said together hello is anybody in but nobody answered ... Just at that moment', but the story lacks character and setting descriptions, and literary effects. There is minimal dialogue.

Demi's assisted story contains several fairly successful features. An interesting plot is gradually unfolded, organised into paragraphs. Characterisation is made clear through dialogue, but the story lacks a description of the setting. The scene is set in the opening paragraph - the story starts by introducing the main characters (two girls) who are playing a game of hide and seek. Their clothes are described. One of the girls (Bethany) decides to go into the woods where she meets a snake. An element of suspense is created. It transpires that the snake can talk. The snake's untrustworthy nature is hinted at - "I am could (called) Ssscar ... SSSSS don't go now." Interrupted scar in anger. The snake's character is further revealed when a storm starts and the complication is revealed, "If I don't get home soon I will get my death of cold and I won't have the energy to run home". Cried Bethany "well that's the point you're staying with me" slivered (sic) scar. The situation is resolved. Bethany escapes at night and runs home. Demi comments on the events through the Bethany character, 'I can't believe that I went on my one (own) and I met a python. It wouldn't let me go, but when it was night time I decided to escape'. There is a satisfying ending - 'That was when I seen (sic) the house.'

Demi's post test story contains several fairly successful features. An interesting plot is gradually unfolded. Some attempt has been made to describe the setting and the characters and the writing is organised into paragraphs, but the story lacks literary effects. The story starts in a way similar to both the pre-test and assisted stories. It begins with the words 'One day', just like the pre-test story, but then the scene is set like in the assisted story. Two girls are playing on the beach 'in their swimming costumes, with a t-shirt on the top ... because it was getting cold'. Demi then hints at the real theme of the story, 'when they were eating their...
lunch they saw a pirate ship’. Dad reads a story to them causing them to fail to notice the tide coming in until it is too late. The incoming tide brings the pirate ship closer to them. The pirates start to attack by throwing bombs. The children and their dad climb into their car. 'When Ellie was climbing over the front seat her foot hit something and some floats started to come out'. At this point of the story, it is clear that Demi has remembered and started to retell the story of 'Chitty Chitty Bang Bang'. A complication is hinted at - "I want that car," shouted the captain really loud ... "Where are my spies? You will swim to shore and make a plan." The pirates manage to steal the car, but the girls and their dad find the car at the end of the story, whereupon they 'sneak' off with it 'safe and sound'.

A summary of the whole text strengths and weaknesses in all three of Demi's stories is provided in Table 7.16. All features awarded 'good' reports are shaded. The features which are better in Demi's post test story when compared with her pre-test story are highlighted in blue.

Table 7.16 Comparison of whole text features for Demi's stories

<table>
<thead>
<tr>
<th>Theme</th>
<th>Feature</th>
<th>Pre-test story</th>
<th>Assisted story</th>
<th>Post test story</th>
</tr>
</thead>
<tbody>
<tr>
<td>Story structure</td>
<td>Paragraphs</td>
<td>Poor</td>
<td>Good</td>
<td>Fair</td>
</tr>
<tr>
<td></td>
<td>Plot</td>
<td>Poor</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td></td>
<td>Opening</td>
<td>Poor</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td></td>
<td>Ending</td>
<td>Poor</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td></td>
<td>Complication</td>
<td>Fair</td>
<td>Fair</td>
<td>Fair</td>
</tr>
<tr>
<td>Character development</td>
<td>Personalities</td>
<td>Poor</td>
<td>Fair</td>
<td>Poor</td>
</tr>
<tr>
<td></td>
<td>Dialogue</td>
<td>Fair</td>
<td>Good</td>
<td>Good</td>
</tr>
<tr>
<td>Use of literary devices</td>
<td>Setting</td>
<td>Poor</td>
<td>Poor</td>
<td>Poor</td>
</tr>
<tr>
<td></td>
<td>Effects</td>
<td>Poor</td>
<td>Fair</td>
<td>Poor</td>
</tr>
<tr>
<td></td>
<td>Theme</td>
<td>Poor</td>
<td>Fair</td>
<td>Fair</td>
</tr>
</tbody>
</table>

7.7.2 Comparison of grammar and style features

The CHECK TEXT scores for all three of Demi's stories are presented in Table 7.17.

The CHECK TEXT scores for Demi's pre-test story reveal a strength in vocabulary. Demi uses a high proportion of sophisticated words (words > 5 letters = 19.4%, adverbs = 5%). She also varies the way she starts her sentences (simple sentence starters = 25%). However, Demi also uses a high proportion of simple words and does not vary her words greatly (common words = 18%, variety of words = 62%). She relies upon basic connectives,
and her writing is poorly punctuated with full stops and lacks any commas (connective and = 5%, basic connectives = 6.5%, mean sentence length = 17.4 words). Her story is short (139 words).

With HARRY's assistance, Demi improved on the variety of her words and used far fewer common words (variety of words = 69%, common words = 8.3%). She also relies less upon common connectives and punctuates her writing more accurately (connective and = 2.8%, basic connectives = 1.9%, mean sentence length = 10.3 words, sentence to comma ratio = 2.1). Her story is more detailed than the pre-test story (360 words).

Demi's post test story is the most detailed (404 words). The CHECK TEXT scores reveal improvements in several features when compared with her pre-test story. She has used far fewer common words (common words = 6.9% less, basic verbs = 1.5% less, basic connectives = 3.3% less, connective and = 2% less) than in her pre-test story and punctuated her writing more accurately (mean sentence length = 16.8 words, sentence to comma ratio = 3.4). However, some scores are worse - she has used far fewer sophisticated words (words > 5 letters = 8.8% worse, adverbs = 4.3% worse). Demi consistently varies the way she starts her sentences (simple sentence starters = 29.2%).

A summary of the grammar and style strengths and weaknesses in all three of Demi's stories is provided in Table 7.17. The poor, fair, good reports help to show whether changes in the scores indicate an improvement or deterioration in writing performance. All features awarded 'good' reports by CHECK TEXT are shaded. The better and worse scores for the final draft of the assisted story compared with the control are highlighted in blue and yellow. N.B. Not all of the highlighted scores improved sufficiently to be awarded a better report.

Table 7.17 Comparison of grammar and style features for Demi's stories

<table>
<thead>
<tr>
<th>Theme</th>
<th>Feature</th>
<th>Pre-test story</th>
<th>Assisted story</th>
<th>Post test story</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Score Report</td>
<td>Score Report</td>
<td>Score Report</td>
</tr>
<tr>
<td>Whole Text</td>
<td>Total no. of words</td>
<td>139</td>
<td>Poor</td>
<td>360</td>
</tr>
<tr>
<td></td>
<td>Words</td>
<td></td>
<td></td>
<td>404</td>
</tr>
<tr>
<td></td>
<td>Variety of words</td>
<td>62%</td>
<td>Fair</td>
<td>69%</td>
</tr>
<tr>
<td></td>
<td>Basic verbs</td>
<td>6.5%</td>
<td>Poor</td>
<td>3.6%</td>
</tr>
<tr>
<td></td>
<td>Total common</td>
<td>18%</td>
<td>Poor</td>
<td>4.5%</td>
</tr>
<tr>
<td></td>
<td>words</td>
<td></td>
<td></td>
<td>11.1%</td>
</tr>
<tr>
<td></td>
<td>Words &gt; 5 letters</td>
<td>19.4%</td>
<td>Good</td>
<td>15.6%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>10.6%</td>
</tr>
</tbody>
</table>
7.7.3 Perceptions of writing ability and what makes a good story

Demi said during the pre-test interview that she was ‘good at writing stories without someone telling me - stories just about anything. Writing is easy’. She thought that what she did best at when writing a story was ‘joined up handwriting’ and to improve her stories she should ‘put some more interesting words in it’. Demi said that what makes a story ‘good’ is ‘if it’s got lots of adventures in it’ and what would make a story not very good is ‘not putting very interesting words in it’.

Demi felt that she had improved at writing during the study. She said her post test story was better than her pre-test story because it has ‘more detail than my first one and it’s more interesting’. However, she thought her HARRY assisted story was the best of the three stories she wrote ‘because it’s got animals in it’. She was ‘not sure’ how she could make her stories better, but she thought that HARRY was trying to tell her ‘to make it more interesting’. She demonstrated a slight change in view about what makes a ‘good’ story ‘good’ between the pre-test and post test interview - writing in detail is important, by including ‘lots of adventures’ because ‘when they’re longer, they’re more interesting - when you get to the exciting part you think you’ve got quite a bit more to read’. She was clearer about how to ensure her words were more interesting - a story would not be very good ‘if you used a word too many times, like ‘and’, or ‘was’ or ‘they’.’ Demi gave a curious answer to how she wrote differently with HARRY - ‘I typed faster’.

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### Table: Adverbs and Sentence Starters

<table>
<thead>
<tr>
<th></th>
<th>Adverbs</th>
<th>Good</th>
<th>Poor</th>
<th>Fair</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple sentence starters</td>
<td>5%</td>
<td>0.3%</td>
<td>0.7%</td>
<td></td>
</tr>
</tbody>
</table>

| Connective 'and'       | 5%      | Poor | 2.8% | Fair | 3% | Fair |
| Other basic connectives | 6.5%    | Poor | 1.9% | Fair | 3.2% | Poor |
| Average sentence length | 17.4    | Poor | 10.3 | Fair | 16.8 | Poor |

| Punctuation            | Mean sentence length (full stops) | 17.4 | Poor | 10.3 | Good | 16.8 | Fair |
|                        | Sentence to comma ratio | ∞ | Poor | 2.1 | Poor | 3.4 | Poor |
7.8 Observations of the children's writing behaviour

It is not the intention to provide a full description of the observable effects of the HARRY system during each draft of the children's assisted stories or the effects of the system upon the children's writing behaviour with this follow up study, as these aspects were the focus of Chapter six. Nevertheless, it seems important to comment briefly upon the observable effects the system had upon the second group of children, presented in this chapter. Observations of the children's writing behaviour whilst writing the pre and post test stories are also commented upon.

HARRY was particularly effective with Mollie, Charlotte, Demi and Ricky. They produced very successful stories with HARRY's assistance and the stories were a considerable improvement on their previous unassisted stories. They worked in harmony with HARRY and reflected on the guidance appropriately. Mollie and Ricky appeared to think in just the same way as HARRY. They instantly seemed to know how HARRY's guiding prompts fitted in with their story - almost as if they were expecting the next prompt. Nicole's improvement was more limited. Nicole considered each of HARRY's suggestions carefully. At first she copied HARRY's ideas - for instance she copied HARRY's suggestions for the pirates' characters - 'they were all silly, stupid, clumsy, untidy, and still had baby toys'. Nicole began to think of her own ideas later in her story. Demi thought long and hard about HARRY's suggestions, frequently staring at the computer screen, with a pop-up box open, without writing. At first she copied some of HARRY's suggestions, for example, she started her story with a description of a game of hide-and-seek, borrowing the phrase such as, "Ready or not, here I come". Later, she used her own ideas, such as the talking snake.

As with the first group of children, there was observable evidence to suggest that these children were revising their writing. Many instances of cognitive conflict were apparent. For example, Mollie reflected on the prompts suggesting that a creature could be coming out of a crater, such as a hairy, orange alien, Mollie wrote of a cute alien she described as 'a big, angry, red headed ball of fluff' and instead of the girl in the story being scared of the alien as might have been anticipated, the alien is scared of the strange looking girl because of her hair, remarking "Look at your monster eating your brain". Similarly, Ricky reflected upon a prompt suggesting that the rocket could be made from unusual materials and a prompt suggesting words like gleaming and enormous, and wrote 'the rocket gleamed in the sun and it was a magnificent sight with its polished red tail fins ... the cabenated (sic) steal glimmered in the sunlight but it wasn't very strong!' Mollie frequently revisited earlier sections to reread both her story and previous help boxes. Demi spent long periods of time thinking,
Without writing anything. When asked if she was 'stuck', she explained 'I've got some ideas, I'm just thinking how to put them into sentences'. Initially, she tended to only half-fill the reply box. Then, after reading what was to happen next, she returned to the previous box to add details that led onto the next piece of action before starting to write the new section. It was disappointing to discover that she had not included the adjectives or adverbs suggested by HARRY because, as she commented in the second interview, she could not see how to incorporate them. Her stories would have been improved by having more description. In the first study, James had experienced much the same problem - however, he experimented by linking the extra descriptive words with the connective 'and', causing a temporary deterioration in writing quality. For Nicole, consideration of HARRY's suggestions at the composing stage had a negative effect upon her use of full stops as it did for Sophie in the first study. Her average number of words per sentence tripled from 18.8 in the pre-test story, to 59.6 for the first stage of the assisted. After the editing stage, her score for mean sentence length was restored to almost the pre-test score (19.5 words). Mollie, Charlotte, Demi and Ricky gradually improved upon each of the grammar and style features at each stage. Charlotte and Demi evidently noticed that HARRY punctuated speech with speech marks and, unlike in their pre-test stories, they punctuated speech correctly in both their assisted and post-test stories. Nicole did not use speech marks at all. Demi worked through HARRY's editing suggestions slowly and carefully. She sought reassurance before making some of her proposed more extensive changes.

HARRY was less successful with Andrew. To begin with, Andrew did not seem interested in HARRY's composing suggestions. He knew what he wanted to write about - a crew on board a submarine equipped with 'anti locking missiles', in shark infested waters, and he knew how he wanted to write about this event. He looked amazed when HARRY seemed to know what he was writing about, by suggesting that he write more about the sharks he had introduced in his first paragraph. HARRY gave many suggestions for how to create an effective description involving similes and adjectives in the second section. Andrew however, read, but did not make use of any of these suggestions. Perhaps, like Demi, he could not see how to use the words, or perhaps he simply did not want to use them. Although he largely ignored HARRY's suggestions whilst writing the first two paragraphs of his story, for the remaining four paragraphs, he clearly did reflect on HARRY's advice. His HARRY assisted story was very disjointed and difficult to follow, but Andrew did not seem to notice any lack of continuity. The story was clear to him and followed his original plan - the ideas he recorded on the first page revealed that he had intended to write about a submarine with missiles, sharks, a gang of thirty pirates and a sea scorpion. At the editing stage,
Andrew rarely thought of alternative words for simple words if HARRY did not make suggestions and sought reassurance over the positioning of full stops.

None of the children noticeably revised their pre-test stories, other than changing their mind with some spellings and correcting typos. However, both Demi and Charlotte visibly revised their post test stories - the only children in the study to apparently do so. Charlotte spent the first half hour of the second session of her post test story rereading her story, correcting technical errors (such as capital letters) and inserting new words and phrases before finishing the story. Many times, Demi wrote a phrase, stopped, reread it, then deleted the entire phrase with the backspace button before rewriting it.

7.9 The children's opinions of HARRY

After the children had completed their stories using the HARRY writing system, their opinions of the tool in general and the prompts in particular were sought - for instance, whether they liked the system, whether it helped them, whether they felt the prompts were appropriate, and how the system might be improved. The children were very positive towards HARRY. They all said they liked using it, they all felt that the tool made the task of writing a story easier and they all thought that HARRY had helped them to write better. None of the children who took part in this second study commented that the randomness of the prompts was a problem. Indeed, as the observations and their stories revealed, the prompts appeared to fit in well with their own apparent plans. As might be expected, each child found some of the prompts more helpful than others, but the children had varied opinions as to which were the most and least helpful prompts. The children also varied as to how they thought HARRY might be improved - each child had a different idea, although four of the six children thought HARRY would be improved by having some kind of graphics. The children's responses to the second set of six interview questions presented in Table 7.2 are reproduced in full below.

All the children said that HARRY made the task of writing a story easier:

Mollie: 'because I had more help, like the sentences and the words.'

Nicole: 'the stages were good, easier than writing it all in one go, but if you couldn't go back it would be harder because you wouldn't know what the last thing is.'

Charlotte: 'because he helped me with spellings and where you put commas'.

Ricky: 'because HARRY gives you some ideas for what to write about'.

Andrew: 'because it has those little pop-up boxes and you are allowed to use the boxes - it's not like cheating - they help you'.
Demi: 'because it gives you lots of ideas'.

**All the children felt they wrote better with HARRY's assistance:**

Mollie: 'I put more punctuation in, it made more sense than last time.'

Nicole: 'because it gave me all those words that helped - what it said at the top helped me as well.'

Charlotte: 'Harry helped me by saying all the ideas'.

Ricky: 'I didn't use as many buts, ands, as's and so's. I used more different words. I don't usually use many long words'.

Andrew: 'it's better because it's got loads of action. It's special because I had help'.

Demi: 'I wrote better because it was easier'.

**All the children thought that overall, HARRY had been helpful:**

Mollie: 'a bit - where it tells you what to put in at the top. I liked the useful words because they helped me - when you can't think of an adjective you can look on useful words for some ideas'.

Nicole: 'Yes, the ideas and words were good, but some of the sentences [help boxes] weren't very good because they just described words'.

Charlotte: 'Yes, helpful because HARRY gave me more time, but some of the ideas weren't much good, like saying about coming home at the end - I already knew that because that's how all stories end. The top didn't really tell me what the section was for, like "tell me how it is in space"'.

Ricky: 'Yes - the ideas, useful words and sentence help were helpful'.

Andrew: 'Yes, helpful - when you've finished a paragraph it tells you what to do next'.

Demi: 'Yes, because it gives you ideas of useful words'.

**The children found some of the help boxes more helpful than others:**

Mollie: 'I used them quite a bit when I was stuck, but when I was writing I was alright - the ideas box would give you some ideas of what else to write about ... I didn't go on the sentence help much.'

Nicole: 'Words were most helpful - there were words I didn't know. It helped me do my work better than I thought I could. Early on I always used the ideas, but I didn't need them at the end. The check wasn't much good and the sentence one'.

Charlotte: 'The most helpful were useful words and check because normally my words are a bit boring. Check told me how the story would sound better and words gave me more words to use in my story. Sentence help didn't give me much ideas - I didn't understand it that much'.
Ricky: 'I found the check the most helpful because it made me check through my work and put in whatever it said to put in. They were all helpful'.

Andrew: 'Yes, useful words and ideas were helpful. Sentences were not as helpful as the others because I already had loads of sentences in my mind so I didn't need to use them'.

Demi: Yes, I used sentences the most. Useful words were unhelpful because I couldn't really fit them in anywhere'.

All the children liked using the HARRY program:
Mollie: 'I liked it all. I liked the [pop-up] boxes most'.
Nicole: 'It was good - more fun than writing a normal story'.
Charlotte: 'Yes, I liked changing all the spellings and because there are a lot of sections and you can go back to other sections and they're still saved'.
Ricky: 'Yes, because it helped me improve my writing'.
Andrew: 'Yes, I liked it that you had four selections - wood, space, journey and pirates and you could choose and then it comes up with what you need to do first and what to do after that'.
Demi: 'Yes, I liked writing the story and correcting the spellings. I liked it all'.

Most of the children suggested that the HARRY system would be improved by incorporating some graphics:
Mollie: 'Put a picture of HARRY in the corner ... make him have a mohican and he sticks his tongue out at you! Make him really talk, make him move his mouth'.
Nicole: 'I would like pictures of pirates. Pictures help me think of ideas'.
Charlotte: 'Have borders round the story - space or pirates, depending on the story'.
Ricky: 'If it's a space story, an alien should come up and have a speech bubble for the useful word kind of things. It should be a pirate for a pirate story, a talking tree for the wood story and a person with a backpack and a walking stick for the journey story'.
Andrew: 'It could have little English games to play before you go on the next paragraph'.
Demi: 'I like it like it is'.

7.10 Discussion
All the children in this study reported that they liked using the system and found it helpful, although having pictures, agents or games incorporated into the design would have improved it in their opinion. All the children wrote better stories with HARRY's assistance. Mollie's, Charlotte's, Ricky's and Demi's assisted stories were particularly successful. There was also
evidence to suggest they all revised their assisted stories. A teacher expects pupils working in their zones of proximal development to be focused and able to stay on a task. Judging by the increased length of time the children voluntarily spent writing their assisted stories (see Table 7.3) the children's level of engagement, effort and concentration increased. HARRY clearly provided Demi in particular with both challenge and support - her explanation for why she spent long periods not writing, 'I've got some ideas, I'm just thinking how to put them into sentences', revealed how deeply she was engaged. Successful scaffolding also encourages pupils to feel in control of their learning whilst receiving support - their learning and progress can be presented as their own doing, resulting in increased self-esteem and confidence. Charlotte and Nicole both demonstrated their increased confidence by tackling a story theme they considered previously to be too difficult, after using HARRY. Thus, as suggested by the first study, HARRY's scaffolding appears to be pitched appropriately for this age group.

However, providing a scaffolding of the inner dialogue or thinking process through social mediation is just one aspect of Vygotsky's (1962,1978) theory of ZPD. The goal of scaffolded instruction is that the child begins to internalise the new knowledge and skills and becomes self reliant in the task. Eventually, the private dialogue becomes covert and automatic, requiring little conscious thought. The follow up study reported in this chapter was designed to investigate whether the children showed any signs of having internalised some of HARRY's dialogue. The transition from beginner to accomplished writer is likely to require much repeated writing practice during which time the enabling adult or expert expects to gradually withdraw the assistance offered. However, for the experiment described in this study, the scaffolding was removed completely after a single use of the scaffolding system, to determine whether the children had gained any new knowledge or skills - a challenging test. The results were encouraging.

Mollie, Charlotte, Ricky and Demi wrote much better post test stories than pre-test. Nicole's post test story showed some improvement whilst some features of Andrew's post test story were similar or slightly improved when compared with his pre-test story, others were much worse. Although only Charlotte and Demi visibly revised their post test stories more than their pre-test, there is evidence to suggest that Nicole, Ricky and Mollie also reflected upon and revised their post test stories more - their post test stories were longer and contained more successful features than their pre-tests, and they spent longer thinking about and writing their post test stories than their pre-tests. HARRY was successful with these children at conveying ways of achieving a good story. They showed that they knew more about how to write successfully after using HARRY than they had before - demonstrating their knowledge through their improved writing, their direct answers to the interview questions,
and also in their critical analysis of their three stories. They could all identify which was their most successful story - the assisted story in each case - and they were able to comment on specifically successful features, such as a more sophisticated ending, increased use of dialogue or improved descriptions. Andrew made less progress. He wrote only slightly better with HARRY's assistance, and he did not show many signs that he had learned to write better from the experience - some features of his post test story were slightly improved, but some were worse, the stories were around the same length and he spent the same length of time writing both stories. Furthermore, his responses to the pre and post test interview questions were similar. Uneven abilities and progress occur in all classes. Providing scaffolded assistance exaggerated and pronounced the variation within the small group involved in this study. According to Vygotsky's (1962, 1978) theory of ZPD, repeated experience of the scaffolding system should help Andrew begin the process of internalisation. Although the other children wrote better post test stories than pre-test, none of their post test stories were as good as their assisted stories. Repeated experience would help these children consolidate their knowledge and help them to internalise other features of successful story writing. Without assisted practice using HARRY, the children may forget their newly learned skills.

Instructional scaffolding as a teaching strategy depends on children having some existing knowledge to build upon. That several of the children apparently did not understand HARRY's sentence help suggestions, as shown by their responses to the interview questions and a general lack of response to the sentence help suggestions, may have been because they had had little previous knowledge of different kinds of sentence constructions. Some of the children did not appear to know how to construct similes and did not seem to understand why HARRY suggested alternative sentence starters or how to make use of them. Their teacher was frequently observed to stress the importance of using 'good' words or adjectives to the rest of the class, but did not talk to the class about sentence constructions other than remembering full stops and capital letters. Demonstrating the system to the class prior to the children using it would have the benefit of giving the children some knowledge of playing around with sentence constructions to build upon. Additional help in the form of word games, as Andrew suggested, such as a 'simile generator', a 'word builder' or 'try your words in a different order' may also be useful.

Byrnes (2001, p.37) identifies four phases of instructional scaffolding. The first phase is modelling, with verbal commentary. The second phase is student imitation of the skill they have seen modelled by their instructor, including the commentary. During this phase, the instructor should constantly assess student understandings and offer frequent assistance
and feedback. The third phase is the period when the instructor begins to remove his/her scaffolding. S/he offers progressively less assistance and feedback to his/her students as they begin to master new content and/or process. In phase four, the students have achieved an expert level of mastery - they can perform the new task without any help from their instructor. One of the limitations with the current HARRY prototype is that HARRY is unable to decrease the assistance that is provided. Stepping down the assistance provided by HARRY could be achieved through skilful teaching however. Following Byrnes four stage model, a teacher could decrease the assistance children receive with writing in the following way:

1. Model the writing process using HARRY to demonstrate the thinking skills involved. By projecting the screen onto the classroom wall, the teacher could use HARRY with the whole class, writing a story with the children contributing and improving upon ideas, sentence constructions and words, using the prompts as a basis for discussion.
2. Children working individually with HARRY would be the next step down.
3. A further step down could be asking pairs of children to write a joint story using a word processing package, prompting each other with HARRY style prompts. This was the help Nicole recognised she needed when she asked, 'Can Mollie and I ask each other things?' whilst writing her post test story.
4. The final step would be asking the children to write a story without any assistance.

For children who need more help, HARRY could be used by two children working together on one story, or an adult (classroom assistant or parent helper for instance) and a child, so that the pair can discuss HARRY's suggestions. Alternatively, some teachers may find it useful to use HARRY as a tool for conducting individual conferences with their class as they are writing - using HARRY's suggestions as a starting point. How teachers make use of the system as part of everyday classroom work and the effects on pupil performance, and teachers' opinions of HARRY would make a logical follow up study.

7.11 Conclusions

A combination of research methods was used for the two studies: observation, interviews, and detailed quantitative and qualitative analyses of all the stories produced by the children. With the first study, separate analysis of each of the three stages and observation of the children as they wrote their stories, revealed how, when using HARRY, the children changed the way they approached the writing task and improved their writing, provided they followed the advice. The second study reported in this chapter, followed a pre-test post test research
design to investigate the effects of the HARRY story writing tool upon children's subsequent writing performance. The children were also interviewed to find out their opinions of the system. The results from the second study reported in this chapter indicate that HARRY can help to accelerate children's progress with writing. Five of the children's post test stories were better than their pre-test stories, and the same five knew more about how to write a 'good' story after they had written a story with HARRY's assistance than they had before. The system helped boost the children's confidence in their ability to write successfully - they all felt that they had improved at writing stories. All the children found the HARRY system helpful, liked using the tool and thought that HARRY made the task of writing a story easier. The results of the school studies suggest that HARRY can help children learn how to improve their writing, but cannot of course, guarantee improvement. Much will depend upon the child's mental ability and his or her willingness to follow and reflect upon HARRY's guidance appropriately.

Many program developments and refinements, and possible areas of further research were indicated by the two school studies. These are discussed in Chapter 8.
Chapter 8
CONCLUSION

'What the child can do in cooperation today he can do alone tomorrow'.
Vygotsky, 1962, p. 188

8.1 Summary of the thesis

The problem identified in Chapter 1 is a very real one. Forty percent of children (48% of boys and 32% of girls, Table 1.1, 2002 figures) embark on the increased demands of secondary school education without having attained a reasonable level of writing competence by the end of their primary school career. Statistical evidence suggests that computer use could contribute to the process of helping primary aged pupils achieve higher standards in writing, but Ofsted reports suggest that this will depend upon the exact use made of the technology.

The research literature and government documents related to literacy reviewed in Chapter 2, indicated a way to proceed when designing a new computer tool to help children achieve a higher standard in writing. The new tool needed to act as a response partner in a conference situation, simultaneously enabling the child to experience the cognitive process of mature writers, whilst accommodating the child's usual 'what next' writing approach. However, in addition, it needed to demonstrate the features essential to creating an effective and successful narrative, yet leave the control of the writing with the children. A promising, though challenging, combination.

A review of commercial software packages, related web sites and academic systems presented in Chapter 3, revealed that no system has attempted to combine models of the cognitive process for mature and beginner writers and models of teaching, with assistance designed to help children improve all aspects of narrative writing based on models of children's writing development, in the way that was proposed for the new tool. Most educational software packages deal with a single aspect of the writing process such as motivation, spelling or structure. Web sites either provide information presented in a static format, or simply provide places for stories to be published. Academic systems have demonstrated how to simulate a conversation between the computer and the user. Early writing systems were based on a linear model of first pre-write, compose, then revise. Later systems moved towards facilitating the knowledge transforming process of mature writers. The most recent systems incorporate agents in their design.
Chapter 4 detailed the design of HARRY, a computer tool geared specifically for story writing at Key Stage 2. Two aspects were focused upon: the design of the system so that it demonstrated some of the idiosyncratic cognitive processes of mature writers, and the precise content of the prompts, so that they imparted knowledge that would help children improve their narrative writing. HARRY combines many features of the models that are essential to the task of teaching writing. A balance is achieved between demonstrating the cognitive processes involved in creating a successful narrative whilst leaving the control of the writing with the children. By providing an idiosyncratic combination of the processes of brainstorming, planning, composing, transcribing, reviewing and revising during the first stage, the system helps children experience some of the thinking processes that occur in the heads of mature writers.

The prompts usefully serve as the 'scaffolding' fundamental to the 'guided' approach advocated by The National Literacy Strategy, which enables pupils to carry out a task that would be beyond their unassisted efforts. Children are asked to consider an alternative perspective at the composing stage. They are offered specific suggestions for ideas, word choice and sentence constructions in the expectation that the suggestions will produce cognitive conflict - that is, challenge children to think of better ideas, sentence constructions and word choice of their own. The prompts contained in the editing section are designed to achieve a balance between specifically demonstrating how improvements to punctuation or word choice etc. could be made, and requiring the child to rethink their presentation of these features for themselves. Some prompts explain exactly what to change and how to make the change, for example, 'You may need a comma after the word [eventually]. Other prompts leave more control with the child. For example: 'You have used the word [got]. Try a better word or words'. The intention is that children experience first hand the struggles mature writers experience when writing, causing improvements to be made to the text.

The chosen method of assessing all the narratives written with and without the system was outlined in Chapter 5. Two dimensions were identified: grammar and whole text features. The chapter explained how CHECK TEXT, a utility tool capable of making and interpreting statistical analyses of children's written grammar was created to detect precise differences in children's grammar and style. Information is provided on twelve linguistic features covering sentence construction, vocabulary and punctuation. Broadly, dependence upon the connective 'and', without other basic connectives being present, was taken to indicate a beginner writer, whilst the presence of clauses correctly punctuated with commas, was taken to indicate a mature writer. Mastery of most grammatical structures is expected at the higher National Curriculum levels. CHECK TEXT awards poor, fair and good reports on the basis of
the statistical analyses. Holistic measures, covering story structure, characterisation and the use made of literary devices were itemised and information was supplied regarding levels of writing skill. The descriptive qualitative assessment also used to evaluate the stories produced during the first school study was organised around ten features.

The effects of the HARRY system upon the story writing skills of six nine-year-old children of varied writing ability were carefully monitored, evaluated and compared to control stories written by the same children without HARRY's assistance. The results were presented in Chapter 6. The children employed the revision process characteristic of mature writers and their writing demonstrated improvements, evidenced by better story structure, descriptions, characterisations, use of literary techniques and grammar. The stories written by the control group, who wrote two stories without receiving any assistance, were consistent or slightly worse in quality.

An investigation into the after effects of using the tool, using a pre-test post test research design, was reported in Chapter 7. Six children aged eight to ten years, each wrote three stories: a story using the cut-down version of the system, a story written with HARRY's full assistance on the same theme as the first story, and a story on a new theme using the cut-down version of the HARRY system again. The analysis revealed that for five out of the six children, the post test stories were better than the pre-test stories. Furthermore, all the children reported that using the system helped to make the writing task easier and helped them to improve.

8.2 Summary of the support provided by HARRY

HARRY provides cognitive support:

- HARRY encourages the adoption of the mature writing process as the system involves a process of reflection: with HARRY's assistance, children review and revise, then edit their own texts. The process is displayed visually.
- The system is consistent with the way the human mind works. HARRY guides children through the idiosyncratic composing process of mature writers by combining the processes of brainstorming, planning, transcribing, composing, reviewing and revising, but also allows children to follow their usual 'what next?' approach as the story is written a section at a time. A deviation is made from the mature model of writing - it is considered necessary to leave the editing of grammar until the second stage, and spelling errors until after the draft has been completed.
HARRY, by remembering then presenting information when requested, reduces short term memory overload, giving children time to reflect.

Cognitive conflict is deliberately induced: strategies designed to lead to more effective writing are not imposed, but are negotiated and exchanged with children.

Children are encouraged to conduct an internal dialogue about writing, thus experiencing first hand, the struggles mature writers experience when composing a text.

HARRY is also a tutoring system containing expert-like questions and suggestions which:

- Familiarises children with story formats and ways of developing plots so that they contain an opening, characters, a setting, a series of events, a turn of events or a twist in the tale, and a resolution and ending.
- Provides a framework (the strategy) which supports the writer by giving a skeleton outline of the structure of the whole text.
- The strategy helps maintain cohesion in a piece of writing. It provides a plan which makes allowance for tangential ideas, then brings the child back on track.
- Demonstrates ways of setting scenes, creating suspense, and starting and ending a story etc.
- Guides children towards achieving effective characterisation by describing characters' feelings, their actions and expressing their attitudes and emotions.
- Provides sentence starters and connecting phrases which can help children to extend their own repertoire.
- Introduces a range of connectives, adjectives, adverbs etc. within a meaningful context.
- Extends and reinforces new vocabulary by providing opportunities to use more complex vocabulary in a meaningful context.
- Provides feedback to help children edit their own texts according to particular criteria.
- Helps children who can already write, write better stories.
- Allows a child's individual personality to come through.

**8.3 Summary of the effects of the HARRY system**

With HARRY's assistance the children's writing improved when they followed the advice. The detailed qualitative assessment made of organisation and style features evident in each story, revealed that the HARRY assisted stories were frequently much longer and more detailed. They demonstrated considerable improvements in story structure including paragraphing and contained more balanced, detailed and imaginative plots which included: openings designed to capture the reader's attention, unpredictable events, more effective
characterisation, descriptions enhanced by literary devices such as alliteration, assonance, similes and metaphors, and suspense, achieved through dialogue and varied sentence constructions. These were the result of the carefully considered prompts delivered by HARRY, part of the expert-like knowledge embodied within the tool.

A statistical analysis made by CHECK TEXT, the specially designed utility tool, which facilitates comparisons between examples of writing, formed the basis of the grammar and style assessment. The HARRY assisted stories demonstrated more adventurous and varied vocabulary, evidenced by a higher percentage of adverbs, a higher percentage of words longer than 5 letters, a higher percentage of different words used in the first 100 and a lower percentage of common words. Sentence constructions were more sophisticated, evidenced by a lower percentage of common connectives, particularly the connective 'and', and a lower percentage of sentences starting with pronouns and the definite article. Full stops were used more accurately, evidenced by fewer words per sentence and more commas were used to demarcate the clauses in complex sentences, evidenced by a smaller ratio of words to commas.

HARRY changed the way the children approached the task of writing, evidenced by the demonstrated improvements, by observable differences in the way the children approached the task, including instances of cognitive conflict, the physical changes the children made to their writing, and by responses which made the writing temporarily worse. Sophie was immersed in a continual process of reviewing vocabulary choice and plot ideas, but this was at the expense of punctuation. James attempted more detailed descriptions, but revealed an inability to structure them. Stephanie devised a more imaginative plot, which was well paced, although proved stubbornly resistant to including detailed descriptions. Lauren's assisted story, although relatively weak, showed considerable improvements had been made in all aspects. Rachael made extensive revisions during the editing stage. Tom's assisted story was three times longer than the control and was awarded seven 'good' reports, whereas the control story was awarded none - evidence of the considerable reflection that had taken place. The process of negotiation was clearly visible for all the children involved in the study - they considered the alternative ideas, reflected upon them, then made the ideas their own.

HARRY also helped accelerate writing development of the children involved in the second study, in the short term. Most of the children wrote better post test stories than pre-test and all of the children felt that they had improved at writing. All the children thought that HARRY made the task of writing a story easier and for two of the children, HARRY increased the children's confidence in their writing ability.
8.4 Benefits of the system

HARRY goes beyond the other tools outlined in Chapter 3, as the system combines elements of the cognitive process with a tutoring system. Furthermore, the system is concerned with the whole writing process. HARRY provides models of effective dialogue, which create successful tutorials concerning narrative writing. The process of improving a text is started at the composing stage. HARRY’s approach can result in improvements being made to the text before it is written as well as during and after. When embarking on each new section, children can access alternative ideas, examples of appropriate vocabulary and suggestions for alternative sentence constructions via the help buttons before they start to write and/or revisit the help suggestions after they have started writing and/or finished a section. The strategy ensures all stories written with HARRY’s assistance are well structured. Prompts explicitly explain how to achieve goals such as making characters appear realistic or creating an opening which engages the reader’s immediate interest. Texts are further improved at the editing stage. As children are unable to simultaneously notice problems regarding the content of their story and grammar errors, the editing stage is delayed until the completion of the first draft. Research such as Smith’s (1982) and Cordeiro et al. (1983) discussed in Section 2.7.3 suggest that delaying grammar and style feedback is an appropriate approach with young children. However, although HARRY separates the processes of revising and editing, they are also interrelated. The editing stage reinforces the revising sentence and word suggestions provided at the composing stage. If weaknesses in sentence construction and vocabulary are detected, then comments will be delivered during the editing stage. The National Literacy Strategy and the findings of the research have been rigorously applied to the system to ensure that HARRY concentrates on significant linguistic features.

HARRY suggests children concentrate on one aspect of writing at a time, for example the next part of the story, or appropriate words and sentence constructions to convey a character description. By taking over the task of remembering the previous context, HARRY assists children by reducing short-term memory overload, giving them time to reflect. Conferencing with HARRY helps make writing cease to be a lonely task. Advice is constantly made available. Inexperienced writers can be painstakingly guided through the writing process. Bereiter and Scardamalia’s (1982) research has shown how many children benefit from being prompted to write more, or from encouragement to assemble a list of words that they feel they are likely to need. HARRY goes further however, by requiring in addition that the child brainstorms new plot ideas, ways of constructing sentences and varying vocabulary during the actual process of writing, by asking the child to reflect on the different suggestions.
offered. The responses become part of the story. HARRY especially helps young writers with the organisation of the writing so that it conforms to the specific genre of story composition, as it is the inability to organise writing into a story form that underlies many of the problems children have. That most of the children improved their writing, both during and after using the tool, suggests that HARRY's approach is sound.

8.5 Limitations of the system

- The composing stage relies upon the child's willingness to first consult the help suggestions, then reflect sufficiently upon the questions raised by the prompts. HARRY does not offer any incentive for consulting the help suggestions, check whether the response made is adequate or appropriate to the section, or provide feedback concerning where improvements might be made regarding the content. Children could ignore the prompts and remain unaffected by them.

- The system relies on children being able to read the prompts easily and accurately. Furthermore, children may not read the prompts all the way through.

- The editing stage relies on the child to make improvements - the child could move onto the next section without considering some, or all, of the suggestions, and without noticing the full extent of a problem or weakness.

- The detection of grammar errors is limited - for example, errors with presentation of speech, use of apostrophes and inconsistent use of tenses are not detected. For some children, insufficient help is offered for the correction of full stops.

- Children have no choice over which guiding prompts they receive - the process of 'negotiation' could be extended to include the overall plan of the story.

- The strategy is not made clear to the child - children may be unaware of HARRY's 'plan'. Furthermore, it is not possible to inform children in advance how many sections they are expected to write, as the number will vary according to whether Key prompts are delivered.

- HARRY offers assistance with just four story themes. No provision has been made for teachers to customise the prompts, or compose their own prompts for different themes.

- The usual facilities associated with word processing, such as writing in bold or undoing typing changes, would be useful, but are not available with the current prototype.

- The interface, although colourful, is not visually exciting or entertaining to use.

- HARRY's identity is not represented visually, making it difficult for children to relate to the computer-tutor.
8.6 Potential developments of the system

The following improvements to the HARRY writing system are suggested for making the system easier and more fun to use:

- Identify HARRY by demonstrating HARRY's appearance visually etc. to give pupils an image to relate rather than the computer screen. Possibly create a range of characters from which the child could choose one to be their personal 'tutor'.
- Incorporate pictures or animations relevant to the theme.
- Include skills games during the composition stage, to encourage children to devise and use interesting adjectival phrases and similes and/or animations explaining how to set out speech etc.
- Spoken prompts (in addition to written) could bring the computer closer to achieving the feeling that HARRY is conducting a 'real' conversation with a child. Hearing the prompts may help ensure the child 'reads' the prompts properly.
- HARRY could, with the addition of speech synthesis, read the story, or parts of the story back to the child, as a human tutor might. Reading a child's story back to the child may be beneficial. Teachers often tell children to read their stories aloud to help find mistakes. When writers read their work aloud, they often read what they want the text to say, not what is actually written on the page. When someone else reads their work, writers can be surprised that the page does not say what they intended it to say. The addition of speech synthesis might help a child notice places where the text does not make complete sense or could be improved, and help identify places where punctuation has been omitted etc.
- Positively encourage children to click on the help buttons, perhaps via animated agents, and check that they have consulted some, or all, of the available help during the composing stage, to ensure they experience the cognitive process.
- Children may benefit from a clearer indication of the stage they have reached in their story. HARRY could demonstrate the structure of a story more clearly and the stage the child is at by for example, providing a status bar indicating which sections of the strategy have been completed, and which remain to be completed.
- Improve the 'Check' feature so that it provides specific feedback based on what the child has actually written concerning composing features, such as insufficient detail, lack of similes, too much/too little dialogue, lack of adverbs and adjectives etc., rather than deliver general comments relating to the focus of the section.
- Incorporate the Key Questions into the section they relate to, perhaps via the Check button, so that they encourage children to expand on a theme whilst writing the section rather than afterwards. By not having separate Key Questions, it would be possible to tell
a child exactly how many sections they are required to write, which could make the overall plan clearer.

- Information supplied by the child could perhaps be used during the initial planning stage, to select prompts most likely to be appropriate for the story, for example an action prompt suggesting that the writer writes about an event which takes place in a wood.
- Check whether the child has responded sufficiently to the editing prompts (i.e. improved sufficiently upon the points highlighted). HARRY could check the text again, or detect no changes have been made, and not allow the child to move to the next section unless sufficient improvements have been made.
- The editing section could include more grammar features such as incorrect presentation and punctuation of speech, apostrophes, inconsistent use of tenses.
- Add more story themes and establish a framework to make it easy for teachers to create prompts for their own choice of story themes.
- Increase the range of features checked for by CHECK TEXT.

8.7 Research questions revisited

What makes a 'good' story, how do successful writers approach the task of writing, and what is the best method of teaching writing? How can these features be incorporated into the design of a computer tool?

The differences between good and poor story writing were indicated by the assessments made of the example stories presented in Section 1.2.3. The features which contribute to the creation of a 'good' story were summarised in Table 2.1 and discussed in Sections 2.6 and 2.7. The analysis was divided into two aspects: structure (including character development and literary techniques) and grammar (including style). Briefly, a 'good' story contains an effective opening, setting and character descriptions, a series of events, a problem or complication, a resolution and a satisfactory ending. Good writing shows evidence of adventurous and sophisticated vocabulary, a variety of sentence constructions and accurate punctuation.

The examples drawn from children's fiction (Section 2.6) demonstrated the features of successful writing more clearly. Story openings are designed to grab the reader's immediate attention. There are three distinct opening styles: action, description and dialogue. Evocative atmospheres or settings are created by writing long descriptive sentences which include literary devices such as similes and alliteration. Effective characterisation results from revealing character's feelings and inner thoughts in addition to providing descriptive details of the character's physical appearance, and through demonstrating how the
character's actions determine the outcome of the story. Recording dialogue can contribute to the process of indicating a character's personality and events. A strong exciting plot centres on an unexpected event, a crisis, a problem, or a complicating action, which needs to be resolved before the end of the story. Stories can contain more than one complication. Suspense or mystery is created by building up to events slowly. Pacing is achieved through a succession of short, simple and minor sentences. Story endings, after explaining the result of the events, usually bring the story round 'full circle'. The final sentence is as important as the opening sentence. It is often a succinct statement, perhaps an aside to the reader, which sums up the story's theme or message.

Grammar (Section 2.7) also contributes to the effectiveness of a piece of writing. Good writing is evidenced by varied and sophisticated vocabulary. Words are chosen to convey precise shades of meaning. Good writing is further characterised by the presence of a variety of sentence constructions, achieved by creating different clause structures, by using different kinds of sentences (statements, questions, exclamations etc.) and by using different types of sentences (minor, simple, compound or complex). Short, simple sentences are interspersed between longer, more complex sentence constructions when writing a narrative, to achieve particular effects - short sentences can add suspense whilst long sentences comprised of several clauses, can enhance descriptions. A variety of sentence connectives will be used in the creation of complex sentences. In addition, good writing is accurately punctuated.

The difference in approach between mature and beginner writers was also discussed at length in Chapter 2, Section 2.3. For mature writers, writing is a continual process of revision: they randomly and idiosyncratically switch their attention between the various subprocesses involved in the task (brainstorming, planning, composing, transcribing, reviewing and revising). Writing for children tends, by contrast, to be a one-step process. Initially, they follow a linear, knowledge telling approach, which leaves no space for reflection.

The model of teaching recommended by The National Literacy Strategy is the guided approach, whereby teachers articulate the thought processes of mature writers whilst demonstrating literary techniques specific to the genre. The approach builds upon the process model which advocates the promotion of the cognitive process of mature writers, but does not provide direct assistance with identifying elements of specific genres such as story writing. Both the process model and the guided approach were discussed in detail in Section 2.5. The creation of cognitive conflict is central to these models of teaching - improvements should not be imposed by the teacher, but negotiated, so that pupils retain control over what they write, and feel challenged to make their own improvements. The process of negotiation
requires that teachers share, exchange and channel ideas with pupils. The teacher adopts the role of response partner, responding to the words used by the children, then encouraging them to reflect and make their own improvements. In this way, children come to experience first hand the struggles mature writers experience when revising their texts. The assistance provided by the teacher applies Bruner's concept of scaffolding (Bruner, 1986, p.74) supported by Vygotsky's notion of the zone of proximal development (Vygotsky, 1962, p.187; 1978, p.86) which describes the discrepancy between a child's actual mental age and the level reached with assistance.

Chapter 4 detailed the design of HARRY, a tool which encourages children to adopt the knowledge transforming approach of mature writers whilst accommodating their usual knowledge telling approach. HARRY provides an idiosyncratic combination of the sub-processes of writing, excluding editing, which can be accessed or revisited in any order when requested. The system also follows the 'what next?' approach, as stories are written a section at a time. HARRY acts as a response partner, delivering conversational prompts to children individually in a conference situation. The prompts impart expert-like knowledge concerning literary techniques pertinent to the genre of story writing. They guide the children's thinking, yet leave the control of the writing with the children. The tool acts as a bridge between the thinking processes of beginner and mature writers.

How can differences in children's narrative writing be assessed?

Chapter 5 provided details of research which was undertaken, using a small sample of published stories representing the spread of ability associated with the end of Key Stage 2, to identify precise differences in children's grammar and style. Ten features were selected for the study, covering three aspects: vocabulary, syntax and punctuation. Statistical analyses were performed on the sample stories and the results were compared to a reliable and objective human interpretation. How it is possible to distinguish grammar strengths and weaknesses in writing using the statistics is demonstrated. Good writing is identified by adventurous and varied vocabulary, evidenced by a high percentage of adverbs, a high percentage of words longer than 5 letters, a high percentage of different words used in the first 100 and a low percentage of common words. Sentence constructions are sophisticated, evidenced by a low percentage of common connectives, particularly the connective 'and', and a low percentage of sentences starting with pronouns and the definite article. Varied syntax is indicated by an average sentence length of between 12-16 words. An average sentence length of fewer than 12 words is an indication of many short, though accurately punctuated sentences. Many short sentences may indicate a predominance of basic, simple sentences, or a successful 'punchy' style. Full stops are used accurately, evidenced by a low
number of words per sentence and commas are used to demarcate the clauses in complex sentences, evidenced by a small ratio of words to commas. Conversely, poor writing is identified by unadventurous and repetitive vocabulary, evidenced by a low percentage of adverbs, a low percentage of words longer than 5 letters, a low percentage of different words used in the first 100 and a high percentage of common words. Sentence constructions are immature, lacking in control, evidenced by a high percentage of common connectives, particularly the connective ‘and’, a high percentage of sentences starting with pronouns and the definite article and an average sentence length which is greater than 16 words. The writing lacks full stops, evidenced by a high number of words per sentence, and commas are rarely used to demarcate clauses in complex sentences, evidenced by a high ratio of words to commas.

CHECK TEXT, a utility tool which uses a process of statistical analysis to discriminate objectively between grammar and style features in children's writing was created based on the results of this study. The ten grammar and style features studied, were converted into twelve features for the CHECK TEXT tool. CHECK TEXT differentiates between good, fair and poor scores. Criteria for awarding good, fair and poor ratings were identified for each of the features to facilitate quick comparisons and to indicate whether an increase or decrease in a particular score indicates an improvement or deterioration in quality.

As writing should also be assessed holistically, ten qualitative features covering story structure and literary techniques were also identified, based upon the usual course of children's writing development, outlined in Section 2.4 and the features of narrative writing expected for each of the national curriculum levels associated with the Key Stage as summarised in Table 2.1. Detailed qualitative assessments were made of all the stories. Criteria for awarding good, fair and poor ratings were identified from the national curriculum level descriptions presented in Table 2.1 for each of ten holistic features covering story structure, character development and use of literacy devices. As with the CHECK TEXT reports, these ratings made instant comparisons of qualitative features possible.

Can a computer tool change the way children approach the task of writing?

Section 2.4.3 reported how children rarely initiate revisions. At best, they proof read at a superficial level. They seldom rewrite sections, change words, or experiment with alternative sentence constructions. Children can be resistant to changing from using simple vocabulary and sentence construction to more mature constructions, achieved by varying word order and sentence type, and sophisticated vocabulary. Section 2.4.4 reported how children's
cognitive development is usually slow and that paradoxically, children's attempts at improving their writing can result in the opposite effect - a drop in writing quality.

The effects of the HARRY writing system upon children's writing behaviour were investigated during the first study, reported in Chapter 6. There were many signs indicating that the children were reflecting and revising more. The children wrote longer, more detailed and developed stories, employed more literary techniques and improved their grammar and style when assisted by HARRY. They either developed the suggested ideas, or they devised original ideas of their own. Many instances of 'cognitive conflict' were recorded, such as the help suggestions that inspired Sophie to include similes and metaphors when describing the wolves. Variations in the effect HARRY had on individual children were noted. For example, Sophie altered the plans she recorded on the welcome page for the direction she wished her story to take and 'played around' with the words on the screen to create particular effects such as alliteration. Rachael made substantial revisions at the editing stage. In addition to refining individual words and punctuation as the other children did, she deleted sentences, added new sentences, and changed the order of the words in others. For Sophie and James, adopting the revision process during the first stage had a negative effect upon sentence construction and/or punctuation - a sign of their willingness to experiment.

Do children write better stories when assisted by a computer delivered intervention strategy?

Detailed holistic and grammar assessments were made of both the control and HARRY assisted stories resulting from the first school study. These were presented in Chapter 6. The assessments revealed how the HARRY assisted stories generally demonstrated better structure, descriptions, characterisation, use of literary techniques and grammar than the controls. CHECK TEXT recorded generally better scores for the HARRY assisted stories than the controls. National Curriculum levels were ascribed independently by the class teacher. Four of the stories improved by one level and two of the stories improved by two levels. The results were similar for the children involved in the follow up study. All the children's assisted stories were better than both their pre and post test stories.

Can the natural course of children's writing development be accelerated by an intervention strategy delivered by computer?

The natural course of children's writing development was discussed in Section 2.4. Kroll and Wells (1983) distinguished several stages of development. The children involved in the school studies were aged around nine years, the age according to Kroll and Wells (1983),
when most children have embarked on the second or 'consolidation' phase of development. The basic skills of writing are usually automatic for most children by the age of seven. During the consolidation phase, 7-9 year old children write with increasing fluency, but cannot easily take command of the process - trying out new styles and combining different elements such as interspersing descriptions with dialogue. They are willing to change spellings, but unwilling to revise. The next phase identified by Kroll and Wells is 'differentiation' which occurs around 9-10 years. During this phase, children begin to shape and structure their story texts, use more sophisticated sentence constructions and vocabulary, make greater use of literary devices, improve technical aspects and become more aware of audience, leading to a greater willingness to draft and edit.

As discussed in Section 2.5.2, Vygotsky (1962, 1978 etc.) suggests that if instruction is designed to reach a developmental level just above the pupil's current developmental level, learning occurs in the pupil's zone of proximal development and that social learning leads to cognitive development. This strategy for teaching is more commonly referred to as 'scaffolding' (Bruner, 1986). HARRY was designed to help children make the transition from the consolidation phase to the differentiation phase. HARRY combines a 'scaffolding' of the mature thinking processes in a way that is appropriate for children with expert-like knowledge concerning literary techniques. HARRY aims to create a conference like situation, acting as a response partner by imparting conversational style prompts. The first study (presented in Chapter 6) suggested that HARRY was appropriately pitched at a developmental level slightly higher than the children's current level - HARRY was successful at helping these children to adopt mature thinking skills and write better stories when working with the system. A follow up study (presented in Chapter 7) was then conducted to investigate the after effects of using the system. The study showed that using the system can help accelerate the children's progress with writing - nearly all the children wrote better stories after using the system than they had done before using it. In addition, the children reported that HARRY made writing easier and helped them to improve.

8.8 Contribution of the project

What the project has shown which is new:

1. The development of a new architecture for an effective writing system, which provides a scaffolding of mature thinking processes appropriately for beginner writers and imparts expert-like knowledge concerning literary techniques (Holdich and Chung, 2002).
2. How the computer can successfully distinguish grammar and style strengths and weaknesses evident in children's writing, by performing quantitative analyses (Holdich, Holdich and Chung, 2002) and how the information can be utilised into a useful research tool for comparing children's writing performance.

3. How a computer tool can change the way children approach the task of writing and help children to improve their writing. Children can, with assistance from the computer, adopt the reflective process characteristic of mature writers, and improve the quality of their narrative writing (Holdich and Chung, 2003).

4. Evaluating a writing intervention strategy is problematic, as paradoxically attempts by children to improve their writing can result in deterioration in some aspects of writing quality (an effect discussed in Section 2.4.4). By using a case study approach, and performing a separate quantitative analysis at each stage of the HARRY assisted stories, the individual pattern of 'improvement' to grammar and style, exhibited by different children, is demonstrated (Holdich, Chung and Holdich, 2004).

5. Evidence of the powerful short-term effect a computer tool can have on individual children's writing performance after a single use of the tool.

8.9 Future research

The National Literacy Strategy was launched in an effort to raise literacy standards in general. Success in achieving higher standards in narrative writing is likely to be dependent upon a teacher's skill in using dialogue to provide a scaffolding of what is involved in the task. As far as the future development of HARRY is concerned, consideration should perhaps be given to Vygotsky's (1962, 1978) view that as children develop the abilities required of them, they should receive less assistance and solve more of the problem independently. Or, to use Bruner's (1986) metaphor, the 'scaffolding' should be dismantled gradually:

'Whatever the nature of the learning partner, the key factor at the heart of effective scaffolding is not only the ability of the more able partner to offer appropriate help, but also their ability to withdraw or fade the support they offer when the learner is ready' (Luckin and du Boulay, 1999, p.1).

Ideally of course, as children start to perform a task independently, they should encounter simultaneously yet more challenging tasks for which help is given. How to best enable HARRY to both step-up and fade-out a scaffolding, that is create a contingent tutor for story writing, like Wood and Wood's contingent tutors for mathematical problems (discussed in
Section 3.6) which 'give more help when the learner gets into difficulty, and offer less help as they gain in proficiency' (Wood & Wood, 1996, p.7), would require much further work.

With this ultimate goal in mind, the following areas of research are proposed:

- Evaluate the effect the proposed modifications of the system have on children's writing behaviour and performance when writing with HARRY's assistance.
- Conduct a study involving teachers and a greater number of children using the HARRY system as part of everyday classroom work where the Hawthorne effect will be reduced.
- Investigate ways of stepping up and reducing the scaffolding, perhaps by creating a generic system which can assist with any story theme, and/or by delivering feedback as well as prompts at both stages, based upon what the child has actually written.
- Investigate whether working with the system helps children make the transition to writing effectively by themselves, using the mature writing process.

8.10 Conclusion

This thesis detailed the design and evaluation of a computer intervention strategy called HARRY upon children's writing behaviour and performance. It provided qualitative and quantitative evidence to suggest that using HARRY positively changed the way the children involved in the studies approached the task of writing, and helped them to produce more effective and successful narratives. The formative studies described in this thesis suggest that HARRY's architecture, which combines a scaffolding of the mature writing process in an appropriate way for children with expert-like knowledge concerning literary techniques, is effective. The studies indicate the potential of conducting further research concerned with investigating ways of improving the system so that it responds to individual users by providing appropriate help as and when it is needed.
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Bibliography


**Children's Fiction**


APPENDIX A
EXAMPLE PROMPTS
## Appendix A
### Wood story prompts

#### Welcome message

<table>
<thead>
<tr>
<th>question</th>
<th>Help Ideas</th>
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<th>Help Words</th>
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<tbody>
<tr>
<td>Write a story about some children who go to stay in a large old house close to a wood. Write about the adventure they have. Make a list of ideas for this story in the box below.</td>
<td>This should be an exciting adventure story. The children will find something unusual - a place, a character or an animal. Perhaps someone has an accident, gets lost or gets trapped.</td>
<td>Think of similes you could use later in your story like: 'The trees whispered amongst themselves like people in a library.' Or 'Like a statue, time stood still.'</td>
<td>secret, den, startled, disturbed, discovered, undergrowth, wandered, hidden away, winding path, explore, clearing, dead end. Tree names: oak, pine, silver birch, beech, fir, sycamore, horse chestnut.</td>
<td>Come back to this or any other page to find ideas for what to write.</td>
</tr>
</tbody>
</table>

| Write a story about some children who go to stay in a large old house close to a wood. Write about the adventure they have. Make a list of ideas for this story in the box below. | This should be an exciting adventure story. The children will find something unusual - a place, a character or an animal. Perhaps someone has an accident, gets lost or gets trapped. | Think of similes you could use later in your story like: 'Branches like arms grabbed their hair and tore hidden away, winding path, at their clothes.' Or 'Thoughts rushed into his head like a train speeding into a tunnel.' | secret, den, startled, disturbed, discovered, undergrowth, wandered, hidden away, winding path, explore, clearing, dead end. Tree names: oak, pine, silver birch, beech, fir, sycamore, horse chestnut. | Come back to this or any other page to find ideas for what to write. |
## Start prompts

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Set the scene. Tell me what the children see as they approach the house. Give me lots of details so I can really picture the scene!</td>
<td>Think about the time of day, the weather, the season. Describe the wood, the house as they appear in the distance and then what it looks like as they arrive. Why are the children staying at the house? How long will they be staying there?</td>
<td>Use similes to describe the wood and the house. The trees stood close together looking like... To the left, a large house stood as if...</td>
<td>Think of different adjectives to describe the wood like: dense trees, a mass of green, a gnarled old oak tree. Use adjectives to describe the house like: old, a thatched cottage, an enormous mansion with magnificent stone lions standing either side...</td>
<td>Does your description flow well. Have you used at least 3 adjectives? How about a simile?</td>
</tr>
<tr>
<td>Try starting your story with a flashback. The person telling the story could be a granny or granpa telling their grandchildren an exciting story about something which happened when they were young children!</td>
<td>Explain here the most exciting part of the story you are about to write... You can add to this part later when you've written a bit more of the story!</td>
<td>A good opening line would be something like: &quot;I've a strange story to tell...&quot; or &quot;I've never told anyone before but...&quot;</td>
<td>Use lots of adjectives so that I can really picture the scene in detail. Pretend you are drawing a picture...tell me about the colour, size and shape of things. Like this: As we drew up outside the house I could see it looked old and run down...</td>
<td>You may want to come back to this page and add more details later on once you are clear about happened exactly! Don't forget to come back!</td>
</tr>
<tr>
<td>Try starting your story with someone talking.</td>
<td>Perhaps the children have already arrived at the house and are unpacking. Have they explored around at all? What do they think of the house and its owner? Explain why the children are staying at the house? How long will they be staying there?</td>
<td>Try starting with someone asking a question. Who will reply? Someone might suggest what they all should do next. Does everyone agree?</td>
<td>Think of different words to use instead of said like: asked, interrupted, suggested, teased. You can vary a sentence by putting said in a different place - perhaps in the middle of what someone says.</td>
<td>Did your opening sentence clearly explain what was happening or what the character is like? Have you shown what the other characters are like through the things they say?</td>
</tr>
</tbody>
</table>
### Start by introducing the children. Tell me what they are doing right now at the beginning of your story.

- Maybe they are in a car on their way to the house. Perhaps they have just arrived and are unpacking or exploring. Explain why the children are staying at the house? How long will they be staying there?
- You can explain what the children are like by the things they say, like this: “I wanted to sit by the window. It’s not fair, you always get the biggest room”. Or “Why can’t we go abroad like everyone else does? Yorkshire is boring!"

### Try using one of these words to start a sentence:

- Next, later, eventually, after all, thinking about it, while.

### Do you think you have written a lively start to your story? Have you explained about how the children feel about staying in the house. Are they excited or are they dreading it?

### Start with a piece of action. A good starting place is in the middle of the action rather than starting at the very beginning.

- Perhaps the children have already arrived at the house and they are playing hide and seek in the house or are just exploring.
- You could start with something like: “Ready or not, here I come” or Alice opened her eyes and looked all around. She felt suddenly alone…

### You could create a busy feeling. Or everything could be slow and calm. It depends on the adverbs you choose. Do they do things quickly, excitedly, in a rush, energetically, or leisurely, slowly, and carefully?

### Did you set a mood for your story? Is it a calm and peaceful one or noisy and exciting one. Is it clear enough do you think?
### Setting prompts

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<th>Help Ideas</th>
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<tbody>
<tr>
<td>Get the children to visit the wood. Describe what it is like there.</td>
<td>Tell me about the weather, what season it is. (if it's winter the trees will be bare, if it's autumn then the leaves will be changing colour and falling from the trees). What about spring or summer?</td>
<td>Use a simile to describe the wood or the trees like this: enormous trees, as big as giants, shook their branches. What do the branches look like? What do falling leaves look like? What do leafless trees look like?</td>
<td>frosty, blustery, cool, dense trees, thick undergrowth, gnarled, the depths of the wood, thick undergrowth, bracken, dry crisp leaves, shiny, slippery leaves, spinning, tossing, fluttering, scattering, dancing, falling silently.</td>
<td>Have you used at least 5 describing words in this paragraph? Have you written a simile to make a really powerful description?</td>
</tr>
<tr>
<td>Get the children to explore the wood. Describe what it is like there.</td>
<td>Listen! What sounds can be heard? The cry of a startled bird? The wind whistling through the branches? Tramping feet? Eerie echoes? Sounds coming from the undergrowth or the distance?</td>
<td>Try using some of these connectives to start your sentences: Furthermore, Also, Whilst, If, Although, Clearly, Undoubtedly, Thinking about it.</td>
<td>eerie, scary, spooky, frightened excited, exhilarated.</td>
<td>A simile would help here. Try adding one of these. The wind whistled through the trees sounding like... A sudden cold breeze felt like... The children were as excited as... or felt as frightened as...</td>
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</table>
## Character prompts

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<tr>
<td>Think about what the children in your story are like. Try to show this in the things that they do and say. Are they playing in their bedrooms or exploring the wood?</td>
<td>One could be a dare devil who dares others to do things? Another could be competitive always wanting to do everything first? Does the youngest always want to tag along even when not wanted by the others?</td>
<td>You can show what someone is like by what they say like &quot;Bet you can't climb that tree over there,&quot; said Tim. Or &quot;Race you to that bush and back.&quot; Or &quot;Can I come too?&quot;</td>
<td>Use words which show how someone feels like: whined, shouted, suggested, interrupted, boasted, bragged, pleaded. Were they frowning, smiling, with a grin which stretched from ear to ear, something else?</td>
<td>Make sure your characters act like this in the other parts of your story? You may want to come back to this page for ideas later on in your story.</td>
</tr>
<tr>
<td>Think about developing your characters. Write about what your characters say, think and do to show what they are like!</td>
<td>One could be a chatterbox who never stops talking? Another might always seem to land the others into trouble? Does one never want to play the games the others play because it's not trendy?</td>
<td>You can show what someone is like using dialogue like: &quot;Don't shout so loud, someone will hear and then we'll be for it!&quot; or &quot;I can't play, I need to paint my nails. I want them to match my top!&quot;</td>
<td>Describe what your characters look like. Maybe: tall, thin, with long wavy hair tied back into a high pony tail with a purple scrunchie. Or scruffy, with a T-shirt hanging down and a base ball cap worn backwards.</td>
<td>Characters can change during a story. They one who usually lands everyone in trouble could end up rescuing the others. The trendy one might decide that wearing grotty old jeans and having adventures is more fun.</td>
</tr>
<tr>
<td>What is the person like who owns the house? Friendly? Mysterious? Old? Eccentric (does strange things). Who is it? Great Uncle Albert? Great Auntie Maud?</td>
<td>Think about what the owner does all day and whether the owner likes children. What does the owner do or say which shows this? What does the owner look like? Describe the clothes the owner wears.</td>
<td>Describe the owner's face and the way the owner moves. Use similes or metaphors. He moved slowly like ... Her face, though tired and old, had blue eyes as bright as ...</td>
<td>The face could be: bright and full of fun, wrinkled and wizened, pale, suntanned and could move about the house energetically, slowly, silently.</td>
<td>Make sure you write about the owner in the same way, in other parts of your story.</td>
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</table>
### Action prompts

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<th>Help Sentences</th>
<th>Help Words</th>
<th>comment</th>
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<tbody>
<tr>
<td>You need to make something interesting or exciting happen in your story now! Perhaps the children discover an unusual animal in the wood.</td>
<td>How about a unicorn? A dinosaur? A dragon? A monster? An unusual creature? Something else?</td>
<td>Use adjectives to describe this character - how it looks and how it moves. Use a simile or metaphor to compare the way it looks or moves with something else.</td>
<td>Use words like: There they were face to face with a hairy, orange alien. Angry, it jumped up and down, its antenna blazing red with rage.</td>
<td>This should be an entertaining section! Does enough happen?</td>
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<tr>
<td>This should be the main part of your story. Perhaps the children make a discovery? Make this part as exciting as you can!</td>
<td>Perhaps the children stumble across a secret tunnel? Or a secret door? A secret staircase? A secret garden? Or something else?</td>
<td>Who is the first to notice it? Do they explore it a bit by themselves or tell the others? Tell me what the children say to each other about the discovery.</td>
<td>hidden, obscured by, next to, in between, close to, in the middle of, entrance, stone slab, wooden door, crumbling steps, underground, dark, damp, cold, wet, tiny, massive,</td>
<td>Did the children make an exciting discovery? Will they tell anyone else about it, or keep it a secret?</td>
</tr>
<tr>
<td>Have some kind of adventure happen now. This will be the main part of your story so write as much as you can!</td>
<td>How about the children find a secret place or world, nobody has found before! How do they get through to this world? What do they find there? Will they be able to get back?</td>
<td>Think hard about the ways you link your sentences. Try starting some sentences with words like: Next, Returning, Beyond, Taking off again quickly, Making a hasty retreat,</td>
<td>You could use the names of planets you already know or make some names up...the more unusual the better.</td>
<td>Did you make this paragraph sound too much like a list? Did things happen too quickly?</td>
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<tr>
<td>Can you build up to an exciting part now?</td>
<td>Maybe one of the children dares another child to climb the largest tree in the wood. What will happen? Will they get stuck? Will they fall? Will they find something unusual? Will the other children climb the tree as well?</td>
<td>Try writing some short sentences or write a sentence as a question. Like this: Ahhhh! What was that?</td>
<td>Think of words which help give a feeling of excitement like: amazing, incredible, odd, strange, peculiar.</td>
<td>Do your characters look or sound excited too? Do they talk quickly? How do they move?</td>
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<tr>
<td>You have reached the part of the story where some kind of adventure should happen.</td>
<td>Your characters could go off in search of something? Or just stumble across something? A creature? An unusual character? A door to another world?</td>
<td>How about starting your next sentence with the words Looking up...or Beyond the tall pine tree...At that moment...</td>
<td>An adventure is likely to be dangerous! hazardous! risky! treacherous! unsafe! perilous!</td>
<td>Have you made the adventure exciting enough do you think?</td>
</tr>
<tr>
<td>Boo! Scare me! Make me jump! Make me turn round. What is there? Put a surprise into your story now.</td>
<td>Perhaps a scary looking creature half animal half human? Or a giant! Perhaps someone is about to attack with a fierce looking weapon? A caveman with a spear perhaps?</td>
<td>Make something happen suddenly without using the word suddenly!</td>
<td>Suddenly, immediately, just at that moment, next minute, instantly, taken by surprise...</td>
<td>Did this turn out to be a scary scene or just a false alarm with nothing to worry about. Which way would work best? Do you like the way you wrote this bit?</td>
</tr>
<tr>
<td>You need to make something really interesting happen now. Something unusual could be discovered. This will be the main part of your story.</td>
<td>Perhaps a hole in the ground which someone falls down accidentally. What might they find at the bottom? Can they get out again? Perhaps they discover a small door in the high wall at the edge of the wood. What’s behind the wall?</td>
<td>You could start your next sentence with: Meanwhile or Going closer or Not knowing what it was...</td>
<td>These are some words you might use to link your ideas: next, later, eventually, after, before, clearly, among, behind, obscured by, opposite, in-between</td>
<td>Look back at this paragraph. Does it look interesting enough? Have you used many of the different words I suggested to describe what happened in detail?</td>
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</table>
## Key prompts

<table>
<thead>
<tr>
<th>phrase</th>
<th>question</th>
<th>Help Ideas</th>
<th>Help Sentences</th>
<th>Help Words</th>
<th>comment</th>
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<tbody>
<tr>
<td><strong>bear</strong></td>
<td>Tell me more about the bear!</td>
<td>Use a simile to describe the bear like this: He plodded silently through the trees like...His growl was as loud as..., it filled the whole forest...He stood upright on his back legs looking as tall as...His fluffy paw hiding claws as sharp as...</td>
<td>Mix up short sentences with longer ones like this: He stood perfectly still for a moment like a statue and stared, almost smiling to himself. Suddenly, he pounced! The wood was filled with the sounds of...</td>
<td>scary, shaggy, enormous, frightening, menacing, in the grip of its strong jaws, angry, ferocious, shaking its head, fighting furiously, menacing, pouncing,</td>
<td>Have you used a simile to describe the bear? Have you used at least three describing words? Have you used some really short sentences to make this scene dramatic?</td>
</tr>
<tr>
<td><strong>creature</strong></td>
<td>I have never met a creature like this! What else could you tell me about it?</td>
<td>Tell me about something funny that it does. Or perhaps it has special powers? Does the creature have a problem? How does it explain it?</td>
<td>Tell me what the creature says. Does it use strange words? How does it speak?</td>
<td>What special powers can you think of? It could make itself invisible, grow larger or smaller, float in the air, hypnotize people. What can you think of? Here are some useful words: invisible, hypnotize, shrink,</td>
<td>Check! Have you started a new line for each time a new person was speaking?</td>
</tr>
<tr>
<td>den</td>
<td>Tell me more about the den.</td>
<td>Tell me what it is made from and where it is exactly. Maybe it's a tree house? Or in a pit or quarry? Or in an old disused caravan? Maybe it's been made out of bits and pieces like fence panels? Tell me who made it and why.</td>
<td>Get the children to ask lots of questions about the den. Who will reply?</td>
<td>hidden, obscured by, entrance, hollow tree, high up, shabby caravan, held together with string, in a deep pit, stone slab door, wooden door, crumbling steps, rickety ladder, dark, damp, cold, wet, tiny, massive, cluttered.</td>
<td>Have you made it really clear what the den is like?</td>
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<tr>
<td>dinosaur</td>
<td>Describe the dinosaur in more detail.</td>
<td>What was the dinosaur doing when it was discovered. Were the children scared or frightened when they found it? Does the dinosaur need help?</td>
<td>Use a simile or a metaphor to describe the size of the dinosaur and its teeth. It was as enormous as...As the dinosaur roared, it showed enormous, terrible teeth, looking like.....</td>
<td>Describe the dinosaur with alliteration using words like: roaring, ranting, raving, vast, voluminous, terrifying, tormenting, terrible, sharp, slimy, seething. How would someone feel if they saw a dinosaur? Legs shaking, knees knocking, teeth rattling.</td>
<td>Perhaps at the end of your story you could write about how the children became famous for finding the dinosaur!</td>
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<tr>
<td>dragon</td>
<td>Describe the dragon in more detail. Go back and build up to finding it more slowly. Tell me about it bit by bit. Perhaps start with just seeing the tail or wisps of smoke.</td>
<td>Tell me about the dragon's fire and what it burns! Will the dragon attack - fighting furiously? Does the dragon have a lair full of treasure?</td>
<td>Use a metaphor or simile to describe the dragon's eyes, body, size and shape like this: Its angry eyes blazed as red as fire.</td>
<td>Describe the dragon with alliteration using these words: roaring, ranting, raving, vast, voluminous, terrifying, tormenting, terrible, sharp, slimy, seething. How would someone feel if they saw a dragon? Legs shaking, knees knocking, teeth rattling.</td>
<td>Have you used alliteration to describe the dragon? Have you used a simile or a metaphor? Have you used at least 5 describing words?</td>
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fairy

Describe the fairy more (does she stay still long enough to take a good look at her?) Does she need help?

Describe how she looks, talks, moves and where she lives. Use a simile like this: She danced lightly across the grass like she was... Her words sounded like... Make her sound delicate and beautiful.

Start some sentences with a word to describe where fairies can be found like: Near, Round, Behind, Across, Under, Amid, Beneath, Beside, Beyond, In front of, Next to, In between.

Use words like: pretty, beautiful, delicate, fluttering wings, friendly, kind, lovely, gentle, thoughtful, tiny, minute, miniature, sweet, flowing blonde hair, frightened, shy, nervous, curious, giggly.

Have you made it clear what the fairy is like? Have you used a simile to describe her? Have you used at least 5 describing words?

ghostly boy

Try to build up the character of the ghostly boy some more. Try to make him seem more ghostly.

Think about what the boy looks like. Perhaps he wears old fashioned clothes. Does he use old fashioned words? Does he understand modern slang words like OK? Does he have an old fashioned sounding name?

Try starting a sentence in one of these ways. The rustling sound grew closer... A blurred movement... A sudden noise like a branch cracking.... Turning around... Sitting on a branch up above... "Promise you'll never forget me..."

light-footed, dodged in and out, barely disturbing the undergrowth, suspicious, scared, telling jokes.

Have you made it clear what the ghostly boy is like. Have you made him sound mysterious? Will you write about this character in other parts of your story?

giant

Tell me more about the giant and what the giant is up to.

Tell me what the giant is thinking and scheming as well as what the giant says. Tell me what the giant looks like, how the giant moves, what the giant is doing and what the giant wants. Is the giant happy or sad? Why?

Use a simile to describe the giant like this: as heavy as... as tall as... tiny little eyes as small as...

huge, massive, enormous, vast, gigantic, unhappy, tearful, dejected, gloomy, miserable, cheerful, merry, frightful, horrible, nasty, clever, kind, friendly, thoughtful, scared, clumsy, hunched, bent down, slow, lazy.

Have you made it clear what the giant is like? Have you used a simile to describe the giant? Have you used at least 3 describing words?
<table>
<thead>
<tr>
<th>gnome</th>
<th>Describe the gnome more. Does the gnome have a problem? Tell me what the gnome is thinking as well as what he says?</th>
<th>Is this a jolly and happy gnome? Or grumpy? Or sad and troubled perhaps?</th>
<th>Describe how he looks, talks, moves in a simile or a metaphor like this: He stomped in a bad temper up the path like ....or he laughed so much he looked like....with a belly as round as ...</th>
<th>Use words like: annoyed, cross, unhappy, tearful, dejected, gloomy, miserably, mischievously, nastily, jolly, excitedly, nervously.</th>
<th>Have you made it clear what the gnome is like? Have you used a simile or a metaphor to describe her? Have you used at least 3 describing words?</th>
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<tbody>
<tr>
<td>house</td>
<td>Describe the house more so that I can really see it in my mind! (Imagine you are taking a photo of every little detail).</td>
<td>Tell me about the atmosphere (the feeling) of the place. Does anything seem odd or not quite right about the house? Have the children checked for secret passages, panels or rooms? Is anything hidden here?</td>
<td>Try to build up a sense of mystery about the house. Write sentences like this: “What was that sound? Shhh, there it is again?&quot; &quot;Was it the sound of a door banging do you think?&quot; Turning around...All of a sudden...</td>
<td>Think about words to describe the sounds that could be heard like: screech! bang! Crash! Clinking and clanking, creaking.</td>
<td>Have you improved your description of the house do you think? Do you need to add more details?</td>
</tr>
<tr>
<td>monster</td>
<td>I have never met a monster like this! What else could you tell me about it? Is the monster really scary or actually quite friendly? Does it need help?</td>
<td>Go back and build up the part where the monster is discovered more slowly. Someone could hear a noise at first, or see some wisps of smoke or trip over its tail.</td>
<td>Find a place where you can use a simile to describe the way the monster looks or moves. It was as enormous as a ... It walked slowly and carefully as if...</td>
<td>Useful words could be: Suddenly, Luckily, Although, After, Before, Immediately, Just at that moment, Everything happened so quickly...</td>
<td>Can you think of any other descriptive phrases, similes you could have used to describe the way the monster looks and moves?</td>
</tr>
<tr>
<td>Word</td>
<td>Prompt</td>
<td>Sentence starters</td>
<td>Describing words</td>
<td>Additional Notes</td>
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<tr>
<td>tunnel</td>
<td>Tell me more about what the tunnel was like.</td>
<td>Think what it would be like inside a tunnel. Cold? Cramped? Eerie, scary? Make this contrast with what it is like at the other end of the tunnel.</td>
<td>dark, eerie, shadowy, cold, silent, echoed, frightening, scary, creepy, a distant light, shining, flash, blazed, flickered, shimmered, warm, sunshine, dazzling, brilliant light</td>
<td>Did you create a feeling of mystery? Did you use at least 3 describing words?</td>
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</tr>
<tr>
<td>unicorn</td>
<td>Tell me more about the unicorn and how she was discovered.</td>
<td>What do the children think and do when they see the unicorn? What does the unicorn do? Is she frightened? Does she run away? Is she the last unicorn? Does she have a story to tell.</td>
<td>glimpsed, spotted, noticed, watched, dazzling, white, sparkling, snowy, glossy coat, glistening horn, glinting in the light, timid, beautiful, gently, nuzzling their hands, patted, caressed, pawed the ground with her tiny hoof, whispered, whinnied softly</td>
<td>Have you made it clear what the unicorn is like? Have you used a simile to describe her? Have you used at least 5 describing words?</td>
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<td>wolves</td>
<td>Tell me more about the wolves! Do the wolves go away...only to return just when everyone thought it was safe?</td>
<td>Use a simile to describe the wolves like this: They flew silently through the trees like...Their eyes shone yellow like...Their howls filled the air like...Attacking with claws as sharp as...and baring their dagger like teeth they...</td>
<td>Mix up short sentences with longer ones like this: Wolves seemed to appear from behind every tree, like they were soldiers in an army manoeuvre, with eyes glinting...They pounced! The wood was filled with the sounds of snarling jaws and howls as loud as...</td>
<td>scary, shaggy, fierce, mean, drooling saliva, swiftly, quickly, menacing, leaping, pouncing, in the grip of its strong jaws, ripping, shaking its head, angry, ferocious, eyes blazing like fire, fighting furiously,</td>
<td>Have you used a simile to describe the wolves? Have you used at least three describing words? Have you used some really short sentences to make this scene dramatic?</td>
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<td>Have you made it clear what the witch is like? Have you used a simile to describe her? Have you used at least 5 describing words?</td>
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<td>witch</td>
<td>Tell me more about the witch and what she is up to.</td>
<td>Tell me what she is thinking and scheming as well as what she says. Tell me what she looks like, how she moves, what she is doing and what she wants.</td>
<td>Use a simile to describe the witch like this: as sly or as calculating as a .... As bony as a ....her eyes were piercing like....</td>
<td>disheveled, messy, scruffy, disfigured by a scar, ugly, small, thin, hunchbacked, old, wizened, pale, hooked nose, piercing green eyes, long cloak flowing in the breeze, cackled, laughed eerily, bony, like a skeleton, nastily, silently, slowly, swiftly.</td>
<td>Have you made it clear what the witch is like? Have you used a simile to describe her? Have you used at least 5 describing words?</td>
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<td>question</td>
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<td>Oh no! Someone does something really silly or stupid which causes a problem.</td>
<td>Perhaps they get stuck or trapped and everyone panics. Perhaps someone has an argument or walks off in a bad mood and gets lost.</td>
<td>Write some short punchy sentences to create a feeling of drama. Try to get a feeling of panic into your story. Think about what your characters could say to each other.</td>
<td>How do people look when they panic? Think of words to describe the feeling like anxious, concerned, nervous, a pounding heart, shaking hands, looking pale and quiet.</td>
<td>Have you written enough about the feeling of panic? Could you improve on what you have written?</td>
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<td>The weather could change. This could cause problems.</td>
<td>There could be a torrential downpour. There could be a storm with thunder and lightning. A tree could crash to the ground and cause an injury. The lightning could cause a fire. What will the children do?</td>
<td>Use a simile to describe the lightning. Like this: The lightning is a great spear of light that comes shooting jaggedly out of the black sky. A crack of thunder banged like... the rain clattered and pattered like... raindrops bounced and danced.</td>
<td>black storm clouds gathered, raindrops bounced and danced, splashing, dripping, spotting, the groaning, moaning wind, the creak of a branch about to snap,</td>
<td>Have you made a feeling of drama here? Is it exciting enough? Have you used at least 5 words to describe the weather. How about a simile?</td>
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<td>I have a feeling something will go wrong in your story soon! But maybe things don't turn out to be quite as bad as they seemed at first.</td>
<td>Perhaps something or someone could get lost or left behind or injured... Organise a search or rescue party! Or someone could land someone else into trouble by accident.</td>
<td>Build up the event with lots of sentences. Something could be glimpsed. Something could catch someone's eye. Someone could hear something important. Someone could move something and discover...</td>
<td>Everyone will be anxious and worried at first... then relieved, pleased, thankful or ecstatic when the lost person is found.</td>
<td>Did things happen too quickly? Could you have described what happened and the scene a bit more?</td>
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<td>Time has passed quickly and it is getting dark.</td>
<td>Are the children safe in the wood at night? What do they do? Do they see anything strange or mysterious? How do they feel? Are there dangers here or do they just imagine them?</td>
<td>Use a simile. As dark as...as creepy as..., scary like..., shadows flicker like...as silent as...</td>
<td>weird night sounds, still, quiet, eerie, creepy, spooky, cold, ghostly, frightening, charcoal black, silvery moon, glistening crescent moon, starless, moonlight, star studded,</td>
<td>Have you made something exciting happen here? Have you used at least 5 words to describe what the wood is like in the dark? How about a simile?</td>
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**Last prompts**

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<td>You'd better start bringing your story to an end now. You may need to sort a few things out first!</td>
<td>Do the children get back to the house safely? Will the children tell anyone about the adventure they had in the wood or will it be kept as a secret?</td>
<td>Your last sentence is really important. Perhaps you could end with someone commenting on what has happened? Will a long or a short sentence be best?</td>
<td>Try to think of words you can use to sum up the adventure. Like this: &quot;To think it all started with an ordinary walk in the woods.&quot; Or &quot;I knew that there was something strange about the atmosphere in the wood as soon as I set foot in it.&quot;</td>
<td>Did you end at the right place do you think? Do you need to add anything else?</td>
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<td>You've got to the last part of your story already! What do you need to tell me about before you finish?</td>
<td>You need to get the children to return to the house. Do they have plans to come and stay at the house again?</td>
<td>Your last sentence is the most important one! Perhaps you could end with describing what is happening right now as the story comes to a close. The children could be packing up to go home or talking to the owner of the house.</td>
<td>You could end with remembering what happened whilst looking out towards the wood, glad or sad that the adventure is over.</td>
<td>Check your first paragraph. Does your last one fit in with what you wrote there?</td>
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<td>This is the end of your story. Explain what happens as a result of the adventure.</td>
<td>Bring things back to how they were at the start of your story. Get the children to pack their bags. Get them to talk about their adventure in the wood.</td>
<td>Can you find an unusual way to end? Perhaps someone could look out of the window at the wood thinking out loud perhaps asking a question.</td>
<td>How about ending with a simile or metaphor to describe the last detail...Looking out towards the wood, the trees were waving like they were sending a message which said ...</td>
<td>Have you explained everything that needed to happen before you ended your story? Check your first paragraph. Does your last one fit in with what you wrote there?</td>
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<tr>
<td>This is the end of your story. The children were gone a long time. Will everyone make a fuss of the children when they return home? Or did no one notice that they had been out?</td>
<td>Will anyone have a memento of their adventure stuffed in a pocket? Do they try to show it to someone like the owner of the house or their mum or dad. Is their story believed?</td>
<td>Try to find an unusual way to end...perhaps someone shivers at the thought of something? Will your last sentence be a long or a short one?</td>
<td>Perhaps you could end with a question or an answer...Should he tell anyone the secret in the wood? He doubted anyone would believe him.</td>
<td>Are you pleased with your last sentence? Does it sum up what your story is about?</td>
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Appendix B.1
Stories representative of National Curriculum levels

Story 1
One day I came in from school with my Brother and sister then my mum went to work and my dad went to the shops to get some boots for me for the Bascketball tournament my sister went to her friends to play netball and my brother went to play on the computer upstairs my dog came in from out side I went in to the sitting room and I heard a voice that said Dominic it said I ran upstairs in to my Brother Lee room and my brother was cross and I went into Max bedroom he was outside I went back downstairs in to the sitting room with my dog I saw my Dog was talk my Dog said Dominic My Dog said a Dog can talk my Brother Lee and Max and my sister came in for dinner I told them our dog can talk. Lee said our dog can talk then my mum came in from work hello my mum went into the sitting room my mum was watch sky movies We told mum I said our dog can talk I brought my dog in and my dog satter talk and mum said your dog is I lovely dog said my mum.

Story 2
On Saturday morning Me, Mum, Dad and two of my brother started packing our lugage at about 1.00 pm. We set of on the motorway and we stoped at a kind of take away for some lunch at 4:00pm. We arrived at the ferry place and waited for ten minutes we where just about to go on the feery until a truck drove in front of us and we had to put on the brakes now we drove onto the ferry finaly we where there.

The ferry has just set of Me and my two brothers were playing on the machines because we had ten pound pocket money each. I went on the football machine Carl went on the car game and Sean went on the gun game.

My Dad took us out side i got into a scrap with my brother sean, me and sean roled of the edge of the ferry into the sea my Dad ran to the conolers room. The captain rang the rescue place. They sent a chopper out to look for us, the wave from the ferrey puched us out ferther into the sea.

The Chopper was slow at getting to the ferry. My dad had to explain what happened to my mum. My mum and dad was woried so was Carl. We where swimming closer to the boat and waving our hands the chopper found us and returned us to the ferry.

Three days later we returned home and found a big hole in the back of our garden. The government gave 20,000000 pounds to repair the hole. We spen the rest of the money we had left over on clothes and extenstion and toys, food, bike, barbequee and are own park.

Story 3
One sunny day and Tina takes her children out to the beach for the day and have a go on the Arcades. When they got there Sarah and mandy asked Tina for an ice cream Tina said

"Wait you’ve only just got here" So mandy said
"OK mum I'll go for a swim first."

So mandy got her rubber ring and went of for a swim. Meanwhile back on the beach Sarah and Tina were playing catch Mandy just lay on her rubber ring floating not realising that she was about 80 metres away from her mum and Sarah. So she fell asleep on her rubber ring, not long after Mandy feel asleep she feel of the rubber ring and woke up and started shouting.

"Mum Mum help I'm drowning!"

Tina reconised the voice and started panicing and also started shouting "life gard help my daughters drowning." and John the life gard swam out to sea and saved her, 15 minutes later Mandy was back on shaw and almost breathing propaly. Then they went back home and the next day mandy was more careful and even better for Sarah and Mandy tina asked John for a date and he acsepted it with pleasure.

So that friday night they went out to beefeater and took Sarah and mandy with them. On the date tina proposed to John and he said yes he would love to so they eventually got married and lived happily ever after the end.

Story 4
Jayne is a lovely girl she is 11 years old. She has long blond hair and big blue eyes. She never gains wait so she is very slim. She is allways good and she loves animals, espesilly cats

Jayne was walking home from school one day and she was in a very good mode because she past her maths and english tests. Sadly something spoils Jaynes day Because when she was walking home she seen a kitten at the side of the road all coverd in blo o d. It was still breathing so she carried it in her arms and ran back home as fast as her legs would carry her. As soon as she got in she yelled,

"Mum mum help I'v just found a hurt kitten."

Mum came down the stairs and said, "Where did you find that kitten?"

"It doesnt matter about that now just please take it to the vets"

On the way to the vets the kitten stopped breathing so mum went through red lights to get to the vet quicker. When they arrived at the vet, it was seen to straight away. Jayne couldnt stop crying. They both knew that the vet wouldnt give up. That following week the cat still needed treatment so everyone was praying that he wouldn't die.

Jaynes dad had been on holiday and he found out about the kitten. Jane wanted to keep the kitten when it was better but her dad said NO! Her mum didn't mind. It was going to be Jaynes birthday the next day so she went to bed early. She felt sad about the kitten. You could tell mum wanted the kitten so she convinced Jaynes dad to let her have the kitten for her birthday. They were just in time to phone the vet before it closed. So that night dad went to pick the cat up. it was much better. The next
morning Jayne woke up and she couldn't believe her eyes. That very cat that she had rescued was lying spread out on the bottom of her bed. Jayne used to have a hamster called Jess 3 years ago so she decided to call that lovely kitten Jess. She still couldn't believe that that very cat she rescued was her very own.

**Story 5**

It is a strange tale, and I haven't told it to many people, but I will tell you.

About two years ago I was living in Devon by the sea. I decided to go down to the beach for a paddle, for it was so hot. I put my costume on and walked off. As I got closer to the water's edge, I spotted a funny little creature, about the size of a baby. At first I thought it was a baby, but it had big pink eyes, long ears and a stubble nose! Not knowing what it was, I walked towards it. The creature looked at me with tears in his eyes. I forced myself to smile and say "Hello, my name is Emily, please tell me what's wrong."

He looked at me looked out to sea then replied, "My family and I were coming to the sea on holiday, when our space-ship crashed into that lighthouse!" I was confused.

"The space-ship fell in the water over there and sunk," he said, pointing out to sea.

"I was the only one who could swim, and got back to shore." There was silence for a moment, and another tear dropped down his cheek. Then he stumbled over saying, "The rest of my family are dead, I have no space-ship to get home in, and nowhere to live!"

"What is your name?" I wondered aloud

"Allmo Allion," he answered.

"Well Allmo," I said, "Up the road at my house in the shed it's quite nice and warm, you could stay in there and come out whenever you want to I will feed you too, but you will have to be careful of my mum, dad and brother if you don't want to be seen."

He agreed, and for the next two months everything was fine. Until one day my mum went in the shed, and saw Allmo!

**Story 6**

"Oh please can I come?" asked my sister Jenny. She was really being a pain in the neck.

"No Jenny" I said "Me and Nicola are going on a long ride over the moors and YOU CAN'T COME! You would get too tired." She went off to sulk. Later on, me and Nicola went to saddle our horses. But when we got to the stables my mum was already there.

"I think you should take her with you," said my mum "But" I said

"Don't leave her out of everything"
“Go on,”

I sighed “Alright” so me, Jenny and Nicola set off. Soon we came to a barbed wire fence. I was over it straight away since I had jumped it so many times, with my horse starlight. “Jenny why don’t you go down to the lower part to jump,”

“OK” she said.

“Have you ever jumped this fence before?” I asked Nicola “No I don’t think so,”

“You better go and jump the lo

But it was too late she had already started to jump it. Then it all happened at once. Moonlight (Nicolas horse) got her foot caught on the fence and Nicola fell off.

“OH NO” I exclaimed with horror. “Nicola are you alright? I don’t think so I can’t get up.” “Jenny, quickly gallop your pony as fast as you can When you find a telephone dial 999 and ask for an ambulance. Tell them where we are and hurry!” I quickly got my coat and wrapped it around moonlights fore leg as she had a very bad cut. Then I took my jumper off, rolled it up and used it for Nicola to rest her leg on.

The next 10 minutes seemed like ten years while we waited for an ambulance.

Soon enough we heard a siren. An ambulance came down the nearby road with Jenny on her pony. We soon got Nicola into the ambulance and her horse to the vets.

The next day we went to visit Nicola in hospital.

“Thanks Jenny,” she said

“Yeah thanks we wouldn’t of been able to rescue Nicola and her horse if it wasn’t for you,” I added. Jenny smiled.

Story 7

It had been a hectic day. It was very hot and sticky. It had been a terrible day for Barney, but it was a day that he made a new friend. It was like this.

It started off by Barney breaking a vase by accident. His mum wasn’t in a very good mood and flew into a temper. He had run in at the door to tell his mum that his friend had invited him to go to the cinema that evening, but he couldn’t stop quickly enough. There was the table, right in front of him. He
collided with it and over it went, vase and all. His mum wouldn't let him go to the cinema and sent him off to clean his bedroom.

His room was in a terrible mess, toys all over the floor, his bin overflowing and his bed unmade. He made his bed, put as much as he could under it, emptied his bin into his mum's bin and went off to play on his computer.

His mum came in and turned off the computer and then saw the hamster cage. She told Barney that he had to clean it all out, put new saw dust in it, get more food and fresh water and get rid of all the old stuff.

When that was finished he went out in to the garden and sat down under the old oak tree in the middle of the lawn. He slept there for a while but when he woke up he saw all the branches of the tree moving but there wasn't any wind not even a slight breeze. He left to his feet and looked at the tree. It was still moving. He thought it was his imagination but then he heard a voice, a deep rough sounding voice. He was sure it was the tree but he couldn't believe it. The tree spoke again. He was sure it was the tree this time. Barney kicked the tree to see if anything happened "Owww! I!" yelled the tree. Barney tried speaking to it. "Hello" Barney said. The tree said hello back. Barney still couldn't believe his ears, but from then on, when he had had a bad day Barney would go into the garden and talk to the old oak tree.

Story 8
Louise was always a tom boy until the day her fishing boat struck the rocks.

It was a cold windy morning, the shutters on the Golden Hotel in Weymouth Louise shook rapidly, the curtains inside waved about like unfriendly ghosts. The winter wind was cold and violent, thrashing the sea up onto the beach. This was no day to go fishing.

The boat shed's door swung open, footsteps echoed around the room. The sea princess lay still and untouched, a rope swung from somewhere cording itself around her pull hook The sea Princess was being pulled to sea. Her peeling paint left marks down the sand to the sea.

She was free Louise was free, free to enjoy the morning air, on her small boat 'The Sea Princess'. Louise's mum had told her the night before that the sea would be to rough to go fishing the next day, but what did she care she was a tom boy and if boys could handled their boats today why couldn't she?

She rowed out quite a distance from the beach just to make sure her mum couldn't see her.

Then it struck her, a huge wave pounded upon her small helpless boat sending her and the boat towards the rocks. Another wave struck, this time sending Louise into the angry sea, she tried to swim but the waves kept her in the same place, until her arms became week and her mouth stayed under water. I mustn't give up. I must not, Louise kept repeating in her head. Them came the deadly wave striking her on to a jagged rock pinning her down for every part of life Then a noise and a flashing light startled Louise, it was the Coast Gaurds coming to rescue her, she tried (to wave her hands to show
she was there but they had already spotted her. The big orange boat then approached her, full speed ahead. She was safe at last. As she boarded the boat she was greeted with a blanket and her mum. The Coast Guards told her never to go out in weather like that again.

1 week later.

It was a cold winter's morning at the Golden Hotel at Weymouth but Louise knew it wasn't a day to go fishing, as her past experiences told her. She looked out at the huge waves, and then turned to go back indoors.

**Story 9**

Tom woke to the sound of pawing at the door to his bedroom. He sat up on his bed and reached over to his wheelchair and pulled it towards him with all his strength. He was used to pulling it around. He had the problem of its weight, but still it was making him stronger. He slipped his legs out on to the chair and then the rest of his body. He moved gradually over to the door and opened it.

Outside stood Flash his dog. Flash was Tom's best friend along with Janet the girl next door. Flash had been with Tom since he was a child. Flash was a present from his mum and dad for his third birthday. Tom and Flash had practically grown up together, they were more like two brothers than a boy and a dog.

Tom went back to his bed with Flash following behind him. Tom slowly got into bed then Flash jumped on to the bed with him and curled up beside him and they both went back to sleep.

10 minutes later Tom woke again, this time to the noise of knocking on his window. He looked out and there was Janet staring in on them. Tom got out of bed and opened the window. Very rudely he said, "Go away Janet, I'm trying to go to sleep!"

"Alright then I will go away but I wont tell you what I was going to say". "Fine, then don't, now go away!" and angrily Tom shut the window.

The next morning Tom went out with Flash to the Old Manchan where the three of them, Flash, Janet and Tom, had found a secret garden hidden behind great walls that were covered in ivy. Tom and Flash went in and started going down the path when suddenly he heard, "Tom, let's go down here."

Tom looked around but there was no one there. He thought it must be Janet playing a trick on him for last night, but there was no one there that was except for Flash but it can't have been him because he was a dog and dogs couldn't talk, or could they? He looked down and suddenly Flash said, "Come on then Tom." Tom still couldn't believe his eyes or his ears. Flash then went down into the bushes Tom followed.

Appendix B.1
Story 10

It was a warm and humid day at Putsborough beach. Flies buzzed irritatingly around the many sunbathers basking in the sun. The sea was scattered with dingys and boats, one of which seemed to be floating aimlessly about on the blue. The small yellow inflatable had only 1 passenger, who was flapping his arms frantically, and trying desperately to get himself to shore. But, the more he flustered the more he was pulled further and further out. Suddenly, the sea seemed to somehow cave in, almost implode, and in a split second the helpless man was gone, Just another victim of the sea.

I was watching all this from the small tower situated on the beach. I raced across the sand to a speed boat floating near the shore, thrust the speed lever forward, and shot off across the water, keeping a close eye on the spot where the man had disappeared. I arrived to find no trace at all of the man and was about to set off back to shore when Arthur, a close friend of mine, pulled up beside me in his own motor boat.

"What are doing out here for heavens sake?" he said, scowling at me "Oh. you wouldn't understand" .. "I replied "No, come on, come on, what is it?" insisted Arthur.

"Well ... you'll probably say that a padded cell is where I should be .... but I'll tell you anyway. "Well?" chuckled Arthur.

"The sea caved in."

"What?!"

"I said, the sea caved in, taking someone with it."

"You're having me on, aren't you? Nick? hello!"

I didn't answer him. I had noticeci large bubbles appearing at the surface. Then, without warning, it happened again. With a great WHOOSH we were sucked under.

The next thing I knew, we were in a huge cavern, full of water. Luckily enough, diving gear was available, as it was in a small compartment in the boat, which had come down with us.

"Oh my god Art" I said staring at a huge shape that stood before me. "What do you see?"

U-U-Uh ... s-seven giant s-squid ..uh what do you s-s-seep"

"The same as you I answered, 'And look There's the man and his dingy!'

We quickly through him a rope, also in the boat. But he was uncoutious. The squid had a tight grip on his neck. We pulled back the rope, and tried to lasso him. It worked. We swam as fast as we could out of the cavern, leaving the squids behind. We reached the surface with the man .... he was still alive, and with a little treatment, he would be O.K. Our rescue was a complete success!
Story 11

“Oh Spider,” I said, cuddling against him. “This is so romantic.”

“Oh?” came a grunt. Why does he have to be so boring? He’d probably rather stay at home and watch morning tv than come for a walk with me.

There was only one other couple on the beach, and a distant figure near the shore. The beach was quiet now, and hardly anyone noticed the figure by the rocks, gazing out at sea. Hardly anyone, that is, except me.

“Look Spider, she looks lonely over there,” I said, nodding in the direction of the figure.

“Alright” he grunted. rising to his feet. Then he leapt into action, sprinting over to the rocks.

It wasn’t long before he came back.

“Mer, Mer, M-M-Mer” he stuttered, as he ran along the path to the beach house behind us.

“Spider” I yelled after him. But he didn’t come back.

“Spider!” Chicken.

I slowly trudged along the damp sand. As I got closer, the figure flinched. I quietened my steps Who ever this was, she had beautiful hair. It glistened like spun gold as she ran a comb through it. I stepped towards her. She swung around, and then I knew what spider meant.

“Arggh!” A scream escaped from my throat. But it was too late. The mermaid grabbed my arm and yanked me under the ocean. The icy cold water hit me like a boxer throwing a powerful punch. Deeper, deeper I went. I held my breath, hoping she would let go.

When we reached the sea bed, the mermaid sat me down on a shell and tried to talk to me. Her mouth moved in silent plea, but I didn’t understand. My face was turning blue. I couldn’t breathe. Finally, pointing to the locket around my neck, she let go of my arm. I swam for the surface. It seemed like an age before my head bobbed out of the water. I took in a huge gulp of air. Nothing had ever felt so good in my life!

I dragged myself to the shore and sat on the rocks, breathing in the clean air. Suddenly, my locket felt as though it was pulling. Wanting to go somewhere else. My mother had given me the locket, which had always fascinated me. She told me she had found it on this beach. Now I knew what I must do. I pulled off the locket, and threw it in to the sea. It hit the water with a splash, and slowly sank. I waited. Some minutes later, the necklace surfaced again, but this time the mermaid was wearing it. Then I noticed that in her hand she held another locket, exactly the same as the one I had given her.

“Thank you for giving me my voice, Clare.” her voice sounded like chimes tinkling in the wind. “This locket is for you.” She held out the golden chain.

Appendix B.1
"Thank you" I said, unable to say anything else. I took the locket in my hand, cradling it carefully, and smiled up at her. She smiled back. "And now I must leave you." With a flash of her tail, the mermaid dived under water, her scales glistening like emeralds.

I watched the bubbles on the surface for a while, then looked again at the locket. I fastened it around my throat.

"Clare?" A voice broke the silence.

"Spider" I ran towards him, and kissed him, a long passionate kiss. "Hey, calm down," he said after a while. He held me in his arms.

"How'd you get so wet"

"It's a long story!," I chuckled, as I began to tell him my tale.

Story 12

As I was walking home from school and I had a funny feeling that some thing strange was going to happen I got into my house and went straight up stairs to lie on my bed ( I was very exhausted). After about five minutes I heard a strange voice saying, "Can I talk to you?"

"Who was that?" I cried, scared stiff. I knew that no one could be in the house at the time because mum had popped to the shops and dad had not got home from work

I heard the voice again and I looked around the room to see who it was. The voice seemed to be coming from the window sill. The only thing that was on my window sill was my old teddy bear. I looked closely at the bear sitting there sadly.

"Ah ha," said the bear suddenly, "you've finally turned around." I fixed my eyes on him, totally astonished.

"You can speak?" I asked shakily. Not surprisingly, I had never heard a stuffed toy speak before in my entire life!

"What do you want?" I asked, my voice a little less shaky this time.

"I have come to help you. I can help you win your races on Sports Day," the bear replied. "Can you?" I said, a little surprised.

"Oh yes," said the bear. "All you need to do is touch my magic ear and you'll have all the power you need to win every race." At that I became excited. I had not won a race at Sports Day before, and I couldn't wait until Friday, to hear everyone cheering for me and to receiving my medals.

When Friday came I was very nervous, more nervous than I had ever been before. My legs were shaking, my knees were knocking and my teeth were rattling inside my head. I sat in a group with the rest of my team and got ready for my first race — the 100m sprint.

This was it! The race before mine had just finished and I was ready to start. "Ready, steady, GO!" shouted Mr Green, our headmaster. Suddenly I raced off leaving the other runners way behind me. My legs just seemed to carry me away. Eventually I approached the finish line. I had won the race! All my friends were cheering me! From then on, throughout the day, I won every single race that I had entered. Every time, I got the cheers that I had never had before.

Appendix B.1
When I got home that afternoon, I ran straight upstairs to give my thanks to the teddy bear. I just could not believe that I had actually won the races.

That night, when I was in bed, I thought about the swimming gala I had entered the next day and about what I had done to win the races at sports day. I got up and went to touch the teddy bear's magic ear and as I got back into my bed I heard him say.

"You will win that swimming race tomorrow. I smiled to myself and closed my eyes.

The next morning I got my swimming things ready for the gala. I was very excited but I knew I would win. I set off with my mum to the swimming baths. When we got there we met my best friend Sue. Sue was also competing in the same race as me. When the time came for my race I got into the water and waited for the referee to start the race. "Ready... Steady... GO!!" and I rushed ahead leaving all the others back at the starting line. It was a 200m race, and soon, after 8 lengths of the swimming baths I was the first to reach the finish line I had won once again. But this time I got no cheers, everyone didn't seem comfortable that I had won the race.

The next week, back at school I discovered that I had got a prize for winning an art competition. "Wonderful!" commented Mr Green when he gave me my prize, but no-one else seemed very pleased. Throughout the day everyone seemed to be complaining that I had won too many events and I wouldn't give other people a chance. I had never thought of it that way. I just wanted people to like me and to cheer me on. I could hardly concentrate on my work for the rest of the day, I felt so disappointed. At the end of school, I walked home sadly.

As soon as I got back to my house I ran upstairs to tell the bear off for ruining my life, but all I saw was a stuffed toy, just sitting there like a normal teddy bear. I shook the bear up and down but he did not speak. I was very glad about that. Now I could be my old self, and I don't care if I never win anything ever again.

Appendix B.1
Appendix B.2
Stories written with the early prototypes

Stories written with prototype 1

1. Pirate story

Prompt: Let's write a pirate story!

There was a bunch of deadly pirates, their names were: Blackhole Bill, Snuffbag Sam, Terrible Ted and the captain was called Whitebeard Willy. Their cabin boy was called Tom. Let me tell you more about these pirates of the deadly seas! Aren't you afraid of Blackhole Bill? He's actually quite stupid, doesn't know anything about rigging and asked to bring a sail down? He'd pull down the wrong cord and before you could say "Billy!" (which is what he's known as) you'd be hit on the head with the mast! Scared of Snuffbag Sam? Poo! No need to be scared of old Sam! He loves animals, wouldn't hurt a fly! Got loads of pets! (made everyone on board be a vegetarian!) Terrified of Terrible Ted? Why who'd have thought it. He loves his teddies! Got 10 on the ship 50 more at home! He always wears his pyjamas and has got a ted for every occasion! (Even sleep walking!) The captains not much better off! Whitebeard Willy is seasick! He hates it, he just sails around for the treasure and the thought of being rich! He couldn't steer a ship even if you paid him £50! The cabin boy Tom is much better off! He can steer the ship, climb the rigging, throw down the anchor, put the sails up and even make the disappointing crew, a hot mug of chocolate!

Prompt: Oh look! A message in a bottle!

One day, a very hot sunny day, the pirates were on an Island. No-one lived on the Island and bones covered it. Willy was reading a treasure map. (upside down and little did he know it was a map of England written in French, he thought where the roads crossed treasure would be buried!) Sam was building a sand castle near the wet sand. (he was making it out of dry sand and was wandering why the sand collapsed every time he tried to push it up!) Ted was asleep with his teddies (well only 6 of them!) under a palm tree. That just left Tom, that's a good point, where is Tom? Ahh yes there he is! He's on the wet sand crouched over something! Let's see what it is! exclaimed Tom, "if only I could get it open!" Tom picked up a small stone and wedged the cork off. Inside, there was a tatty piece of paper that had a few smudges of brandy on. It said: Ha Ha Ha propair to do batul skiny persuns! Ha Ha Ha Ha!

Prompt: What do these scheming pirates plan to do next?

Tom ran to the other pirates and showed them the message and the bottle. "If they steal my coins!" shouted the captain and danced with rage. "My precious coins! My precious chocolate coins!" 'Pm sure they Won't steal your important chocolate coins!' replied Tom worriedly, "I think their after our money and drinks and I think they are the cut throat evil robbers!' At the terrible name the pirates fell silent and shaked and quaked and looked around them as if the cut throat robbers were right behind them, ready to capture them and their ship and take their money and drinks!

Prompt: What will the pirates do with the treasure?

The pirates thought and thought for what seemed like ages and suddenly Tom the cabin boy came up with a brilliant idea so that the treasure wasn't going to be stolen by the cut throat robbers. They were going to sail away to the Canny Canny islands and bury the treasure! But before they did Tom found a map of the Canny Canny islands and put a cross on the map so that he knew where the treasure was. He also made sure that the cut throat robbers wouldn't know where the treasure was buried by covering up the sand of where he buried it. He also had two spies to make sure the cut throat robbers weren't following him. The spies were Sam and Ted. Tom buried the treasure without anyone seeing and came back to the ship with the 'spies'. Tom then went to the hilly mountains and dug a hole in the side of one of the hills and put a cross on the treasure map. He then buried the drinks and went back
to the island where he had first found the message in a bottle.

Prompt: What do the pirates get up to?

The pirates were ready for an attack. Each pirate had a gun and a sword and protective clothing on, Tom had a sword and he spread the pirates out ready for the cut throat robbers to come to the island. In about half an hour or so the pirates had had two cups of orange juice each and a packet of jelly babies between them. They weren’t scared any more they were tired of waiting. Ted had insisted that all of his six teddies all had a pretend sword and protective clothing on too. (They were going to protect him!) And two minutes later a dark sad ship scrunched up onto the sand and the cut throat robbers got out. The pirates were ready for them. Ted’s teddies fought the cut throat robbers better than Ted did (well at least they tried, Ted just ran away!) Tom fought the cut throat robbers better than any of his ship mates did. Ben shot his belt and his knickers fell down! Sam shot a hole in his own ships sail. Willy fought quite well but he had a very unnecessary haircut that left him bald in places he shouldn’t be. Then the cut throat robbers remembered something. "Where’s the treasure shouted one of them. “Yeah tell us where the treasure is” shouted another. But Tom didn’t tell them where the treasure was and he, Sam, Ted and Captain Willy fought them back into their own ship and stole all of their stolen loot. They then gave it back to all the people they had stolen it from.

Prompt: What will the pirates do with the treasure?

They left their treasure where it was but picked up their brandy as Captain Willy couldn’t live without it and sailed away for more adventures under the sun.

THE END!

2. Seaside story

Prompt: Imagine you go to the seaside.

I went in the car to the beach. It was a long journey and I eat a sweet or two on the way. We finally got to the seaside and I got out of the car and ran towards the glorious deep blue sea.

Prompt: Watch out for the speedboats!

The speedboats came and smooshed up onto the sand, they nearly ran me over! I ran out of the way just in time! The speedboats were big and heavy. One of them was pink and orange and yellow and gold and violet and silver! One of the people who got out of the multicoloured speedboat was a girl who had long dark brown hair and soft luscious eyes that winked at you. She wore a pair of dungarees and a pink T-shirt underneath. She had turquoise sandals and a pink flower on and her hair in pigtails, her name was Anya. Her dog called Blacky was a scottish dog and was running beside her.

Prompt: Still hungry I bet?

She was heading towards the fish and chips caravan to get her dog and herself a meal. "Hey wait!" I called to her and she turned round and looked surprised, Blacky ran ahead and I caught up with Anya. "Hi ya Suzie!" she said (she was my best friend at school - we were trouble makers!) “Hi, I’m coming to get lunch here! My mum and dad and Tami are coming soon!” (Tami is my 18 year old sister. She’s crazy on hair make-up nails and that stuff. We’re trendy but she’s snazzy!) We waited at the entrance of the caravan for my family then we ordered our food.

Prompt: Did Mum have something to say about this?

Of course, mum didn’t approve because we had pepsi cola and the last time we had it it split down out T-shirts and it didn’t wash out! Well it wasn’t our fault! Anya’s big brother Steven pushed us, well…… I suppose……. We did finish the level off on his playstation, but we died on the second level and we thought he wouldn’t notice! Anyway, after we had lunch without washing out hands (another thing my mum was cross about) we got on our swimming costumes while Tami sunbathed and
listened to her walkman. We took Anya’s mum and dad their lunch and went splashing in the glorious deep blue sea.

**Prompt:** Perhaps someone falls over?

We fell over lots of times and Tami tripped up on the hole we dug. She was very cross and I got grounded from pocket money for a week! Then we found a real find! We found a cave! We played we were cave men and we got captured by each other! I won in the end and Anya got tied up with seaweed!

**Prompt:** Use some describing words to help me picture what the sea looks like!

We could see the sea from the opening of the cave, it looked still and beautiful, we saw all the speedboats apart from Anya’s go back to the sea sending ripples on the waves, white horses came tossing in from the sea!

**Prompt:** Does the boat capsize?

Suddenly one of the boats in the harbour turned over, the sharks were in! Luckily, there was nothing in the boat and some nearby life guards turned it the right way up and rescued the oars!

**Prompt:** Use some describing words to help me picture what the sharks look like!

The sharks swam away, they were big with huge chomping jaws but they were cowards! Anya and I decided to take our inflatable boat out. We blew it up and sailed away!

**Prompt:** Tell me more about the swimming!

After a while Anya decided to go swimming so I joined her. I found we could breathe under water so we played dolphins and went to fish.

**Prompt:** Watch out for the speedboats!

When we got back to the surface, our boat was gone! We swam out into the sea to retive it and came back shattered! Mum said it was time for an ice cream so we put our clothes back on and went to the ice cream man. I got a double flake 99 and Anya got an orange ice lolly. We sat on some deckchairs to eat our ice creams. When we had finished them we looked in the rock pools, I found a crab, a starfish and lots of tiny fish. Anya found two small crabs. We put them in our buckets and sneaked up on Tami! Tami gasped and jumped up in horror and surprise as the slimy lumps fell on her new top, as a result I got grounded for four weeks but it didn't matter! It was fun!
<table>
<thead>
<tr>
<th>Original prompt and story</th>
<th>Revised story</th>
</tr>
</thead>
</table>
| **1. Welcome message**  
Hello. Here is an idea for a story: A strange creature, possibly from another planet (maybe a pokemon) is found. It needs to be taken home and looked after...but nobody must discover it! Use the box below to jot down any ideas you have.  
pikachu squirtle charmander bulbasaur | We are going to revise the story. pikachu squirtle charmander bulbasaur |
| **2. Start question**  
You could start your story by describing what your main character looks like...what he or she is wearing and doing right now.... | Start comment  
Is there anything you would like to change here?  
Jamie was going to his friends house for tea. He was wearing a striped top and jeans. His mum said “Be good and be nice to Kitty when you get to Toms”. To get to Toms Jamie had to go down his hill and turn right go past some shops round the bend up another hill until he got to Toms house.  
Jamie was going to his friends house for tea. He was wearing a striped top and jeans. His mum said “Be good and be nice to Kitty when you get to Toms”. To get to Toms Jamie had to go down his hill and turn right go past some shops round the bend up another hill until he got to Toms house. |
| **3. Setting question**  
Describe finding the creature and taking it home. Who finds it? How do they first notice it? Can they believe their eyes?  
When Jamie was crossing the last road he came across a pokemon well the pokemon noticed him and made him trip up. Owl said Jamie. He had read the pokemon handbook and knew the pokemons name was Pickachu. He ran the last way to Toms to show his pokemon. They went up to Toms room where he showed Tom pickachu. Tom said what shall we do with pickachu? Why don't you keep him and show Ashley answrd Jamie.  
When Jamie was crossing the last road he came across a pokemon well the pokemon noticed him and made him trip up. Owl said Jamie. He had read the pokemon handbook and knew the pokemons name was Pickachu. He ran the last way to Toms to show his pokemon. They went up to Toms room where he showed Tom pickachu. Tom said what shall we do with pickachu? Why don't you keep him and show Ashley answrd Jamie. | Setting comment  
You handled the part of your story where you described finding the creature very well!  
They showed it round the house (Toms house) Pickachu liked the kitchen best because it had his favrit food in because he loves apples and there were thousands of apples in the kichen. Pickachu didn't like the dinning room much because the table was to high for him.  
They showed it round the house (Toms house) Pickachu liked the kitchen best because it had his favrit food in because he loves apples and there were thousands of apples in the kichen. Pickachu didn't like the dinning room much because the table was to high for him. (it was one meter tall) It took fifteen goes for Pichachu just to get his head above the table. |
| **4. Action question**  
At home, show the creature around the house...show it different rooms...what does it like? What does it dislike?  
They showed it round the house (Toms house) Pickachu liked the kitchen best because it had his favrit food in because he loves apples and there were thousands of apples in the kichen. Pickachu didn't like the dinning room much because the table was to high for him.  
They showed it round the house (Toms house) Pickachu liked the kitchen best because it had his favrit food in because he loves apples and there were thousands of apples in the kichen. Pickachu didn't like the dinning room much because the table was to high for him. (it was one meter tall) It took fifteen goes for Pichachu just to get his head above the table. | Action comment  
Could you have written more here?  
They showed it round the house (Toms house) Pickachu liked the kitchen best because it had his favrit food in because he loves apples and there were thousands of apples in the kichen. Pickachu didn't like the dinning room much because the table was to high for him. (it was one meter tall) It took fifteen goes for Pichachu just to get his head above the table.
<table>
<thead>
<tr>
<th>5. <strong>1st Keyword question (creature)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Move around the room quietly! Someone might hear!</td>
</tr>
<tr>
<td>Jamie warned Tom we had better show pickachu around the house quickly and quietly otherwise someone might hear! Then suddenly pickachu said picka p. Tom and Jamie told pickachu to be quiet.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Keyword comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can you find a place where you could add another describing word?</td>
</tr>
<tr>
<td>Jamie warned Tom we had better show pickachu around the house quickly and quietly otherwise someone might hear! Then suddenly pickachu said picka p. Tom and Jamie told pickachu to be quiet.</td>
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</tbody>
</table>

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<thead>
<tr>
<th>6. <strong>2nd Keyword question</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Someone has heard the creature and is coming down stairs to see what the noise is all about!</td>
</tr>
<tr>
<td>Then Toms mum came down the stairs! &quot;Ahhhhhhhhhh!&quot; said Tom and Jamie what do we do now? Asked Tom hide pickachu Jamie answrd. So they hid pickachu behind the armchair and they quickly got out a bord game and quickly set it up so it looked like they were playing it.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>7. Character question</th>
</tr>
</thead>
<tbody>
<tr>
<td>I do not feel I know all the characters in your story very well. Please can you give me some more information about them?</td>
</tr>
<tr>
<td>After Toms mum went threw the longe (and did not see pickachu) they got pickachu back out just when Kitty was coming downstairs. Kitty saw pickachu and she was writing a story for her school projet and needed some more ideas when she saw pickachu she asked if she could make a story up about him. Tom said of course she could. Kitty asked if they could describe pickachu in a good way so she could describe pickachu in her story. So Tom and Jamie started to describe pickachu. They said that pickachu looked quit like a mose with pointy little ears and some brown stripes on the back of him. They also said that pickachu had a tail that lookt a lot like a liting bolt with blak on top.</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Character comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Can you develop your characters some more? Are they gentle? Kind? Stubborn? Naughty?</td>
</tr>
<tr>
<td>After Toms mum went threw the longe (and did not see pickachu) they got pickachu back out just when Kitty was coming downstairs. Kitty was very kind heres an example if you told Kitty to keep a secret she would keep it) Kitty saw pickachu and she was writing a story for her school projet and needed some more ideas when she saw pickachu she asked if she could make a story up about him. Tom said of course she could. Kitty asked if they could describe pickachu in a good way so she could describe pickachu in her story. So Tom and Jamie started to describe pickachu. They said that pickachu looked quit like a mose with pointy little ears and some brown stripes on the back of him. They also said that pickachu had a tail that lookt a lot like a liting bolt with blak on top. (and said that Pickachu was cute and gentle).</td>
</tr>
</tbody>
</table>
8. Open question
I am looking forward to seeing what happens next!

Open comment
Find a place where you use the word and. Think of a different word you could use like but, so, because, as, since.

On the next day when Ashley was going to Tom's house the same thing happened with him except it was a different pokemon. Ashley had also read the pokemon handbook and he knew that the pokemon's name was squirtle. Ashley knew that squirtle was a cute turtle and was a water type so he brought him round to Tom's house. When Ashley arrived Tom came down to open the door with pikachu in his arms when he opened the door Ashley said "hello" and pikachu said "hello" to squirtle and squirtle said "hello" to pikachu in their own language "pika" said pikachu to squirtle and squirtle said "squirt squirt squirt" meaning hello isn't it a nice day today. Ashley said "I found this squirtle in the street" and Tom said "that's a coincidence Jamie only found a pikachu just yesterday."

9. Action question
Be thinking about whether the creature has special powers. Is it able to grant wishes? Able to transport people to somewhere else? Shrink or go invisible?

Action comment
Is there anything you would like to change here?

Pikachu and Squirrel had special powers Pikachu could attack you and Squirrel could make you drown! It was fun to attack you and pretend to make people drown!!! Year it was REAL fun to attack you! And pretend to make people drown!

10. Open question
Try writing a question in your next bit of writing to vary your writing!

Open comment
Did you try writing a question to vary your writing?

"How about making a battle called PICKCHU vs SURTUL?" asked Tom "OK" said Ashley "fine by me" so Pikachu fought Surtul and Pikachu WON!!!!!!!!!(isn't that amazing)
<table>
<thead>
<tr>
<th>11. Complication question</th>
<th>Complication comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perhaps the creature needs rescuing right now? What trouble has it got into? Will this be a funny part?</td>
<td>Is it easy to guess what is going to happen in your story do you think? Can you make a better surprise happen?</td>
</tr>
</tbody>
</table>

*Sqirt!* said Sqirtul and every one started to laugh! *HaHaHaHa* *(very funny NOT!)*

"HaHaHaHa" "I can't stop laughing" said Tom "me neither" said Ashley "it is so funny" But then Toms mum shore Pickchu "so that's what you've been hiding from me" "oh well" "I give in I better go home" said Toms Mum "but Mum" "you are already home" said Tom "oh well by!!!!!" said Toms Mum "oh well" said Tom "she already was crazy!!!!!!!" said Tom "I agee I agee" said Ashley "stage thing was she was alwas like that!!!!!"

<table>
<thead>
<tr>
<th>12. Last question</th>
<th>Last comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bring your story to a close now.</td>
<td>Can you see any mistakes here? You could correct them now!</td>
</tr>
</tbody>
</table>

So every time Ashley and Jamie went to Tom's house they played with Pickachu. If you want to know what Kittys story was read this book again.
Stories produced with prototype 3

Story 1

Welcome

Hello! I think that a story set in outer space would be fun to write. What does going into space make you think of? Write down the first ideas you have for this story in the box below.

Have a narrow escape with a meteor. Meet martians. Find a new planet - water, air, food etc

2. Start

One way to start a story is to begin with what someone says.

Idea help

Who is talking? An astronaut? Ground control? An alien?

"5, 4, 3, 2, 1, blast off!" The spaceship took off when it heard the ground control radio it from star command.

"Lift off in procedure!" announced John as the journey began. Going past meteors, massive boulders flew past the cockpit window. "Oh, no!" A jagged rock hit the rocket. The next thing John knew, the rocket was blowing up. The P.C. screen flickered black and red words came up on the screen, saying 'GAME OVER!'

3. Setting

What are your characters feelings about being in space?

Word help

There's lots of words you could use to describe how your characters feel. Try some of these: eerie, scary, spooky, frightened excited, exhilarated.

"Oh dear, that massive rock again is it?" John's father said coming into his bedroom, "Never mind, it's time for tea now anyway, switch your computer off now will you?"

"Okay." John agreed and came down for tea.

"I expect John knows more about space than I do!" John's father commented. He was going on an expedition to an unknown planet that hadn't been visited before.

"It's exciting up there in space!" said John excitedly. "When I'm older, I'm going to be an astronaut!"

His father ruffled his hair and sat down to tea. The fish and chips smelt wonderful and they tasted even better!

4. Character

Can you tell me more about the characters in your story?

Idea help

Tell me what they say, feel and what they are thinking.

John couldn't believe his dad was going into space the day after tomorrow. He felt excited for him but he was also worried about him, what if a sharp jagged rock killed him up there? His baby sister Clare was only two years old. She didn't understand about solar systems and planets yet, she probably didn't know her dad would be the first person to step on the colourful, big planet; that hadn't even got a name yet!

5. Setting

Use describing words when you write about what it is like in space.

Word help

deathly silent, still and eerie, as cold as a snowy day.
"5,4,3,2,1, blast off!" This time, for real! John had butterflies in his stomach as his sister, mum and himself watched the spacecraft hurling itself, ever faster, into space. Malcolm held his breath as the rocket flew up and up, he could feel the change in the atmosphere and was glad of his seatbelt. He was sitting in the middle of his two other colleagues, Lara and Simon. From loud noise to dusty silence, hot climate to freezing cold.

6. Action
Is there danger out here in space? What from?

Ideas help
Perhaps a robot? An alien? Or a strange creature.

As the rocket landed on the unknown planet, Malcolm undid his seat-belt and cautiously took off his helmet. From what the experiments showed, there was a form of air on the planet. The only danger he knew that lived on the planet was the 'blurbs'. These creatures were a danger to man-kind, although only being 30cm tall they act nicely at first, but then they poison you. Their only big weakness was nail-varnish. You may laugh, but I'm not kidding you. One whiff of that, and they die on the spot! Magic!

7. Action
How about someone or something suddenly appears?

Ideas help
Describe hearing it come before saying what it looks like!

Once outside the rocket, the threesome hid their nail varnish so as not to frighten the creatures that lived here. Their advantage was that they could levitate. They could kill humans easily by levitating. Without the three knowing it, four blurbs hovered above their heads, seeing the nail-varnish, reporting it back to the boss.

"I could have sworn I saw a shadow just then!" Lara commented, although nobody heard her. Just then a whole fleet of blurbs stood in front of her. They surrounded her, gagged her, and took her away. When they got to the blurbs base, they put her in blurb jail.

8. Key(creature)
I have never met a creature like this before! What else can you tell me about it?

Now, as I said earlier, blurs are 30cm high. They are greenish/purple in colour and have long, hairy ears, a 10mm thick tail with a ball of fluff on the end, small arms as thin as a frogs and rabbits feet on which they bounce everywhere. Only one blurb in every pack can speak the languages of all the countries on earth. This one stepped forward and tried in all languages to say,

"Where's your nail varnish?"
Lara pretended she only knew how to speak in English, which by the time he tried it, the poor blurb had a sore throat.

"What is nail-varnish?" Lara said, faking she didn't know.

"You have some with you!" the blurb persisted.

Ideas
Tell me something funny the creature does!

Meanwhile, Malcolm and Simon were looking for Lara. They were seriously worried when out of the blue, three blurbs popped up in front of them, one was standing on his head, tongue lolling out of his mouth, waggling his feet. Even though they were worried, they just had to laugh. Little did they know, the blurbs had hypnotised them, just as they were about to do with Lara.

9. Complication
I feel sure some disaster is about to happen! What goes wrong?

Appendix B.2
When the three came out of their trance, they were all in jail. They found all the nail varnish but Simon’s had gone. They hadn’t been able to locate his.

"Let’s use yours!" Lara suggested. Simon got his out and undid the cap. Suddenly, all the blurbs that were standing for a mile around clutched at their throats. Voluminous colours filled the air. The blurbs were dead!

10. Last
Will there be a heroes welcome?

When the threesome arrived back home, everyone cheered, T.V reporters rushed to them, families, relatives, friends and newspaper reporters all crowded round them to hear about what they’d been up to in the planet.

"We have now given the planet a name!” announced Lara, “Blurb varnish!” and everyone laughed.

Story 2

Welcome
Hello! Let’s write a space adventure story. Jot down some words for this story in the box below.

Ideas
Think about who the characters will be in your story, what might happen to them and where the action will take place.

Space, Space Monster, Inventor, People.

1. Start
A good way to start your story is to imagine looking deep out into space. Perhaps someone is looking at space through a telescope or out of a window. Set the scene.

Word help
Think of different adjectives to use for the darkness like; inky, ebony, as black as... Think of adjectives to describe the lights like: blaze, burn, dazzle, flash, flicker, glint, glisten, sparkle, twinkle.

Check
Have you used at least 3 adjectives here?

At dusk an inventor looked up into space and noticed how interesting the darkness of space was (10,000 metres). The twinkle of the stars. They looked so dazzling he thought.

"Why don’t I make something to get people up there?" Later he started to work and made an invention he called a ‘Rocket’.

2. Setting
What are your characters feelings about being in space?

Word help
There’s lots of words you could use to describe how your characters feel. Try some of these: eerie, scary, spooky, frightened, excited, exhilarated.

The Inventor asked people if they would like to go into the distant stars and planets and they teased
"It will never work" or
"We will never get up there with that piece of junk."

When the best Inventor built one it didn’t work. Since the best inventor’s one didn’t work more people thought it wouldn’t work but some people wanted to try it out (because they thought it would work.) They did try it out and blasted up into space with sparks flying every where. They where excited and frightened.
3. **Key (inventor)**
Is the invention going well? Tell me how the inventor feels about things right now. What is the inventor thinking?

Ideas help
What does the inventor do which shows these feelings? If things don't work first time the inventor might fly into a temper! If everything is going well perhaps the inventor might hum or sing!

_The Inventor was pleased with his work. Some other people where also pleased. It was going so well the Inventor sang a little song and the people in the unknown galaxy hummed. This is what the Inventor sang,_

"I made this invention like a minute ago pass me the toolbox and off we go with a spanner here and a screw there where did the toolbox go oh over there".

4. **Character**
I don't think I know your characters very well. Decide which will be your main character then have just one or two others.

Word help
A coward might be called a "scaredy cat" or a "chicken." Somebody brave will be bold, decisive... a leader.

_Here are some things about the people in the story:_
Inventor: trying to get the world into the future quicker.
People in space:
Leader: Always on the Inventors side.
The person brave: He is brave as you guessed he has got a gun and is ready to roll.
The coward: Even though he is scared he still hangs about with the leader and The person brave.

5. **Action**
You need to make something really interesting happen now. This will be the main part of your story.

Ideas
Something unusual could be discovered... another life form, a new planet never discovered before, another kingdom? Explain how it was discovered.

Check
Did you make the danger sound real enough?

_In space the people up there where a having great a great time (looking into the black expanse until..._

**A SPACE MONSTER APPEARED!**
But the people weren't afraid (apart from the person who was the wimp.) They shot it dead with a gun (a rocket launcher to be precise). They didn't know what it was. (What type really not what it is) The monster acted in a funny way they reported. The monster had a horses neck and a big cannon and a big green stomach it had black spots as well.

6. **Key (monster)**
I have never met a monster like this! What else could you tell me about it? Is the monster really scary or actually quite friendly? Does it need help?

Ideas
Go back and build up the part where the monster is discovered more slowly. Someone could hear a noise first, or see some wisps of smoke, or trip over its tail.

Appendix B.2
One of them discovered that the monster did not need help it was dangerous. It had a poisonous gas. All three found out that you always saw its head first and it was dumb. They had a very lucky escape from its fire and bombs and fire bombs, although they had bomb proof suits (but there we go.)

7. Complication
A problem could happen. Things could get delayed.

Ideas
Perhaps someone gets injured? Perhaps the spacecraft fails on the return journey?

Sentence help Try to get a feeling of panic into your story. Think about what your characters could say to each other.

Before they could arrive home they had a fuel shortage, they panicked and some other people had to be sent up to get them down. When they got down the rocket acted like a firework when it explodes. Bang. The pieces flew up into space nobody thought they would come down; (there’s a bit of info.)

8. Key (spacecraft)
Tell me more about the spacecraft!

Sentence help
Use alliteration to describe the spacecraft like this: the silver streamlined spacecraft soared. Or a simile like this: the rocket screeched into space like a firework on bonfire night.

Word help
gadgets, control panels, monitors, digital read out, radar screen, dials, instruments, space telescope.

The explosion happened from the fuel it got into the gadgets. When they stopped working one of them hit the packet of tnt’s and that cased the main explosion to spread to the other parts.

9. Last
You’d better start bringing your story to an end now. You may need to sort a few things out first! Does the spacecraft need to return?

Ideas help
Will everything end well or will there be a problem left? Will the story appear in the news or be kept as a secret?

Word help:
Try to think of words you can use to sum up the adventure. Like this: “That was the scariest mission I’ve ever been on!”

All the bits were tumbling down to earth the space rocket story was the biggest one in the news. The inventor was proud and joked it didn’t really need to return (in bits anyway) but he explained he’d make a better one next time.

Appendix B.2
Appendix B.3
Control study stories

Sarah - Space stories

1. Computering in space

I was in a bike shop, my mum and the person behind the counter were helping my little brother, Johnny choose a bike for his birthday. I was playing with my battleship from Macdonalds. I flew it behind the counter which had a computer on it, I looked at the computer screen, and it was off! I checked nobody in the shop could see me, nobody was looking in my direction! I switched it on, immediately, I saw a message on it! It said:

HELP! MY SPACESHIP IS HURTLING INTO SPACE! I NEED HELP! THIS IS AN EMERGENCY!

At first I thought it was a stupid screensaver, then, I wasn't so sure! I pressed a button labelled map and there was a picture, a picture of my toy spaceship, it was racing into space! Suddenly, I found myself inside a smaller spaceship. I saw another spaceship speed past me, I had to help him! I speeded in front of him and we crashed, his engine had gone! He climbed into my spaceship just as his blew up!

"Thank you Thomas, Thomas, Thomas, Thomas!" My mum called me!
"We'll go without you!" She warned!

I followed as she and my brother Johnny went out, Johnny wheeling out his bike with a grin on his face!

2. Squeaky and the aliens

Hello, my name is squeaky, I am a robot from Caneyned city on the planet Titon. I own a typical flying spaceship. It has a complicated control panel with a big telescope and the starship main computer. It tells me anything and everything I want to know.

One day, I needed to know which direction to go to get to Tumex, the next planet. So I switched on my computer and I saw a message: 'Red Alert, Red Alert, Alien Detected!' I panicked, I closed the door and locked it, I started heading upwards. What looked like a spaceship was in front of my screen.

I opened the door and clambered in the other spaceship. There was a funny white alien floating about. They said something in their language, I was scared! I headed back to my spaceship, tripped inside and then a horrible thought struck me! That was my screensaver! The aliens in the spaceship where people - people I'd always wanted to meet, but now they were far, far away! Never mind, I might get another chance another day!

David - Stories about a pet mouse

1. Ben's mouse

One day Matthew brought home his friends mouse. His friend had gone on holiday you see and so Matthew had wanted to do his best friend a favour in all his life and had done so but mum said "NO" "we can't have three mice you go and give it back but mum not now but mum Bens Family have already gone" "oh well I'm stuck with her" mum said. They got up to lots of mischief like going through the bars when they weren't supposed to. Once they had gone through the bars they went outside into the garden and the cat came he's called ginger and he ran backwards stupid thing he should have caught us we weren't scared of him. He's always running away when he's just about to catch us. We went down the wall which the cat had just done and we ran off to the field where we found some of our relatives because we had been wild field mice once but had been captured. We rushed off to the supermarket to get some cheese and cake and some other food. We came back to our relations with
the food and said let's have a party we had a terrific party. (There were no crumbs left only a few cake crumbs but nobody noticed.) We ran home to Matthew's house and guess what we did there WE WENT IN THE ATTIC!!!
and we ran round and round and had a mouse sports party we did lots of races and things like that. Then we went back in to our cages and nobody noticed we'd been gone.

2. The New Arrival

Ben and Matthew came home from school they had a cage like mine and inside there was a mouse. It had a wheel and everything I had Matthew had the idea to put it next to mine and we had a long mousey chat and then we raced around the wheel 10 times to see who could go the quickest and the new arrival won. I asked what was his name and he replied Thomas well that was his full name but if you wanted to call him a shorter name you could call him TOM.

One day Tom (Thomas) squeezed through the bars of his cage and opened my door and then we went out into the garden and we played cat and mouse with Battersby Bunge the next door neighbours cat. He was the cat because he was a cat and we were mice because I suppose we were mice. The cat said “I'll catch you for real life if I catch you” and we said “neer neer neer nee you can't catch us we're far too fast and your too slow!” and we stuck our tongues out and we caught the cat up near the wall and it could not turn around it should have walked forwards to the gap but it had to walk backwards. Now it can not turn around and it was to scared to catch us. Tom thought “This is stupid he shouldn’t be scared to catch us. We’re only mice and he’s a great big cat.” The cat walked forward turned tail and ran for his life which was stupid really because he should have caught us not run away. Really cats just as they are going to catch a mouse they run away really but never mind.

Laura - Space stories

1. My Space Story

Hello I am the BFA. It stands for the Big Friendly Alien. All the others are horrible. But you can count on me to not be nasty. I will tell you all the names of the aliens and then you can help with my mission. There is Greydog, Nightnasher, Tumblefrog and Bumblebeater. Now my mission is to get down to earth and get the craze cracker back. It is a big thing that looks sort of like a big water pistol. If I don't all of us will be evil. It fell out of space last goggle sorry you lot down on earth don't speak our language you say year don't you? Anyway I will go to space HQ and get my kit and then we shall get ready for take off. Well the story will begin. "Hi Jake where is my super trooper kit" called BFA. "You know where it is and how to get it" groaned Jake. "Oh yeah just give you my card and go on the lift to the special lockers" replied BFA. "Well?" said Jake. "Well what?" called BFA. "Give me the card," groaned Jake. "Here you go then," cried BFA. When the card had been zapped the BFA went and sat in the lift. Zooooooooom!! The lift was down in a matter of seconds. The BFA jumped out and looked at the number on the piece of paper he had been given. It said number 3456. So he went to that number locker and got out his super trooper kit. So he plodded off to the changing rooms and put it on. He was ready. The BFA ran to the taking off pad 1 2 3 4 5 blast off! The BFA was zoooooooooming off down to earth. He landed in a boys back garden the second he was down he saw it. The craze cracker was gleaming in the morning sunshine. All of a sudden the boy came out of his house and went into the garden shed. The BFA knew he was in trouble and ran behind a bush that stood very tall in the corner of the garden. The boy was looking out of the garden shed and saw the bush moving in the distance. He crepeped out the door and to the bush he looked round the back of the bush and saw the BFA. BFA looked up at the boy and he said I have only come to get that thing that's on the floor over there. The boy looked at the craze cracker then he turned back to the alien. "What are you called?" the boy asked the BFA. "I am the BFA and if I don't get that thing back that's over there then all of space will be bad" trembled

Appendix B.3
The BFA explained to the boy all about the craze cracker. The boy went and got the craze cracker and gave the BFA it back.

"Thank you do you know any helicopter pads that I can take off from" asked the BFA.

"Yes as a matter of fact my dad works with helicopters I am sure I could sneak you on to the pad come and follow me replied the boy.

When they were there they exchanged their goodbyes. Then the BFA was gone all of a sudden he had landed back in space. The BFA knew what to do and then he did it he pressed the button and all the aliens were good again. That night they celebrated and an award was given to the BFA.

2. The Moon Trekkers

Two twins were playing in there house one day. They were having great fun. They were baby space goblins the girl was Tracy Gobblin and the boy was Jake Gobblin. Now when they were playing the moon door opened and they looked terrified because when the moon door opened you almost normally fell out. But if you were at the back of the moon house then you never fell out. Mother Gobblin was in the kitchen at the back of the house and Father Gobblin was upstairs. The twins fell out.

Out of the moon house it was dark very dark and the twins were scared. A whizzing flying saucer flew past their ears.

"What was that" they both said at the same time.

"I don't really know" Cried Tracy.

It came zooming round again but this time swooped both of the children up even higher into space than they already were. They didn't know where they were going or if they were going to stop. They held on tight know they didn't want to fall out of space they had already lost their home.

They were really scared they were flying through the air still. Their dad had always called them a pair of chickens and for once in life they believed him. Crash they had landed on a glistening spiky shape.

The man who had been driving the flying saucer stepped out and said "I have landed back at home from working for a hole week". He was a rather thin tall man and he strode home inside the star the twins followed with out him noticing.

When they were inside the star they thought they better hide somewhere so they went outside and hid behind the star shaped shed.

"We will be safe for the night" they thought.

In the morning the twins woke up really early. They went off to see round the star they were on. They came to some trees shaped like stars. "What a strange forest!" said Jake Gobblin. Yellow star trees wound their way around a path. The twins looked at each other and then went into the wood.

"This is great!" The twins yelled at each other and skipped happily through the forest.

"This is really fun!" said Tracy.

"L L L L..." stammered Jake.

"What's the matter?" asked Tracy.

"Lion!" screamed Jake.

"Lioness don't you mean." Shouted Tracy as they ran through the forest. They were out of breath.

"I'm going to have to stop!" yelled Jake.

"Keep going." Tracy yelled back. Then they reached a dead end, "Oh no!" screamed Tracy.

"HELPCCCCCCCCC!" yelled Jake.

Just then one of the star people came to the rescue! He scared the lioness off with his laser gun.

"Thanks a million!" the Twins said.

"That's OK" the man said "But young children like you shouldn't be out in the star forest all on your own! I will get you back home with my teleporter." When the man started it up they shut their eyes and then when they opened them they were back in their kitchen at home!

"Where have you been." Asked mother Gobblin "We've been looking for you everywhere!"
Appendix B.4

Sophie's wood stories

Control story

Prompt
Write a story about some children who go to stay in a large old house close to a wood. Write about
the adventure they have. Write your story in the box below.

Response

A WITCH
RACHAEL, NATALIE, REBECCA AND JADE GO TO STAY WITH THERE MUM EVERY HOLIDAY,
SHE LIVES IN A COTTAGE ON A HILL SURROUNDED BY THE TREES THAT ARE IN THE WOOD,
BUT AN EVIL WITCH MUMNAPS HER AND PRETENDS TO BE HER. What will happen next? This is
their diary.

She looked the same, but she has pointed toes and holds her nose when we are around. Our
bedroom isn't the same as normal it's normally bright with comfortable beds. But this time it's dull
everything is black. There's cobweb's hanging from the ceiling there's hard beds. Day 2 she took us
out. Jade pushing Rachael's pushchair Rebecca held Natalie's rein's mum is as far far far back
as possible she doesn't normally do that maybe she could not have us but dad insisted she takes us.
We went to the supermarket she told us to be good and wait out side. After that we went home and
locked us in our room. Day 3 We heard her unpacking we still hadn't unpacked so we decided to
unpack. When we were finished she posted food through a small quite long hole in the door she said
she'd booked a school, but only for Rebecca and Natalie. There was play school booked for Rachael.
Not for me I was too old. Every morning all 3 of them left with guard dogs she said it was to protect
them. I never trusted her I told them to be careful and not to trust anybody especially her and those
dogs. Day 4 I was playing on my gameboy when the telephone rang I was just about to get it when
she did. I decided to tape record it; this is what I herd.
HELLO OW IT'S YOU WITCH CHEF, THE LITTLE SILLY'S THINK I'M THERE MUM YES MMIN YES NO NO OF COURSE NOT OUR
WEAKNESS IS WATER. That was the phone call it's 12 o'clock she forgot to lock our door we've got
a bucket of water we're in her room hey I didn't say go Jade Natalie Rachael come on quick it took 4
day's to get home. BUT WE'RE HERE HOORAY THE WITCH IS DESTROYED AND WE ARE SAFE
THE END.

1st Draft with HARRY

Welcome
Write a story about some children who go to stay in a large old house close to a wood. Write about
the adventure they have. Make a list of ideas for this story in the box below.

Ideas
This should be an exciting adventure story. The children will find something unusual - a place, a
character or an animal. Perhaps someone has an accident, gets lost or gets trapped.

Sentence help
Think of similes you could use later in your story like: 'Branches like arms grabbed their hair and tore
at their clothes.' Or Thoughts rushed into his head like a train speeding into a tunnel.'

Word help
secret, den, startled, disturbed, discovered, undergrowth, wandered, hidden away, winding path,
explore, clearing, dead end. Tree names: oak, pine, silver birch, beech, fir, sycamore, horse chestnut.

Check
Come back to this or any other page to find ideas for what to write.

Response
children stay in house in middle of wood (twins sarah +daniel (emily is our mums nameour dads
names marty))
with there mum &dad and there 2 dogs

Appendix B.4
(flora and shean) they discovered 10 wovles (a pack) the wovles chase them to a dead end sarah screamed and then a stiganophithicus (an early cave man from the dinosaurs period) save's them from the wolves. daniels busy and rude to people, sarahs kind and gentle both are inquisitive

1. Start
Try starting your story with someone talking.

Ideas
Perhaps the children have already arrived at the house and are unpacking. Have they explored around at all? What do they think of the house and its owner? Explain why the children are staying at the house? How long will they be staying there?

Sentence help
Try starting with someone asking a question. Who will reply? Someone might suggest what they all should do next. Does everyone agree?

Word help
Think of different words to use instead of said like: asked, interrupted, suggested, teased. You can vary a sentence by putting said in a different place - perhaps in the middle of what someone says.

Check
Did your opening sentence clearly explain what was happening or what the character is like? Have you shown what the other characters are like through the things they say?

Response
"Hi I'm Sarah hi I'm Daniel we're twin's these are our dog shean and flora we're all even shean and flora going on holiday. "We're eleven years old we live at 38 meadow brooklane it's beautiful here we're going to a house on a hill in a wood tomorrow we'll be staying there for 6 months and we can't wait. "This is my (Sarah's) dirary."

2. Character
Think about developing your characters. Write about what your characters say, think and do to show what they are like!

Ideas
One could be a chatterbox who never stops talking? Another might always seem to land the others into trouble? Does one never want to play the games the others play because it's not trendy?

Sentence help
You can show what someone is like using dialogue like: "Don't shout so loud, someone will hear and then we'll be for it!" or "I can't play, I need to paint my nails. I want them to match my top!"

Word help
Describe what your characters look like. Maybe: tall, thin, with long wavy hair tied back into a high pony tail with a purple scrunchie. Or scruffy, with a T-shirt hanging down and a base ball cap worn backwards.

Check
Characters can change during a story. They one who usually lands everyone in trouble could end up rescuing the others. The trendy one might decide that wearing grotty old jeans and having adventures is more fun.

Response
Daniels extremly rude busy and naughty he wears his cap backwards he always wears jeans short sleave T shirts & and a jumper tied round his waist. he has blackish brownish hair. Sarahs kind, gentle, loving, lovy ,perfectly, helpful and obedient when people come round she wears pretty dreasses. were both inquisitive. "Were in the car on our way to the camp (20 hours later )were here!"
3. Setting
Get the children to explore the wood. Describe what it is like there.

Ideas
Listen! What sounds can be heard? The cry of a startled bird? The wind whistling through the branches? Tramping feet? Eerie echoes? Sounds coming from the undergrowth or the distance?

Sentence help
Try using some of these connectives to start your sentences: Furthermore, Also, Whilst, If, Although, Clearly, Undoubtedly, Thinking about it.

Word help
eerie, scary, spooky, frightened excited, exhilarated.

Check
A simile would help here. Try one of these. The wind whistled through the trees sounding like... A sudden cold breeze felt like...The children were as excited as... or felt as frightened as...

Response
"we're as excited as a birthday party. dad told us to calm down then mum said why don't you go and check out the woods but be careful what a good idea we shouted!" "Great idea emily said dad ""its dark , damp , dank and dreary i(sarah)tooged hold of daniels arm when the wolves howls echoed!"

4. Action
This should be the main part of your story. Perhaps the children make a discovery? Make this part as exciting as you can!

Ideas
Perhaps the children stumble across a secret tunnel? Or a secret door? A secret staircase? A secret garden? Or something else?

Sentence help
Who is the first to notice it? Do they explore it a bit by themselves or tell the others? Tell me what the children say to each other about the discovery.

Word help
hidden, obscured by, next to, in between, close to, in the middle of, entrance, stone slab, wooden door, crumbling steps, underground, dark, damp, cold, wet, tiny, massive,

Check
Did the children make an exciting discovery? Will they tell anyone else about it, or keep it a secret?

Response
"we approched a rather big hole in the ground, daniel was so excited that he crouched down and vanished down the hole before you could say stiganophithicus. " "i called down the hole daniel it flooded down and out in a few short seconds it filled the forest with life cries of birds the rusty of the wind somthing moved behind me, daniel appered out of the hole with 10 wolves (a pack) behind him."

5. Key (wolves)
Tell me more about the wolves! Do the wolves go away...only to return just when everyone thought it was safe?

Ideas
Use a simile to describe the wolves like this: They flew silently through the trees like...Their eyes shone yellow like...Their howls filled the air like...Attacking with claws as sharp as...and baring their dagger like teeth they...
Sentence help
Mix up short sentences with longer ones like this: Wolves seemed to appear from behind every tree, like they were soldiers in an army manoeuvre, with eyes glinting... They pounced! The wood was filled with the sounds of snapping jaws and howls as loud as...

Word help
scary, shaggy, fierce, mean, drooling saliva, swiftly, quickly, menacing, leaping, pouncing, in the grip of its strong jaws, ripping, shaking its head, angry, ferocious, eyes blazing like fire, fighting furiously,

Check
Have you used a simile to describe the wolves? Have you used at least three describing words? Have you used some really short sentences to make this scene dramatic?

Response
"The wolves seemed to appear from thin air, and from behind every tree their eyes glinting there was a rush of wind and the glinting vanished, and in their eyes there was sharp bit fire, they were shaggy and wet daniel whispered there the wet drooling zombies (hes crazy about anything like that) then they opened their mouths and howled the forest was filled with the echo it sounded like when our teacher (mrs crogbooble shes mean) scrapes her fingers across the black board." "they pounced! then gave chase but

6. Complication
I have a feeling something will go wrong in your story soon! But maybe things don't turn out to be quite as bad as they seemed at first.

Ideas
Perhaps something or someone could get lost or left behind or injured... Organise a search or rescue party! Or someone could land someone else into trouble by accident.

Sentence help
Build up the event with lots of sentences. Something could be glimpsed. Something could catch someone's eye. Someone could hear something important. Someone could move something and discover...

Word help
Everyone will be anxious and worried at first... then relieved, pleased, thankful or ecstatic when the lost person is found.

Check
Did things happen too quickly? Could you have described what happened and the scene a bit more.

Response
"we came to a dead end. i stumbled and grazed my knee a wolf came near daniel very bravely tried to chase him he came back and pulled me up" "i screamed and a strange creature pocked his head out of a rather small cave slowly a hand then another hand then a shaggy large round fat head came out ""the weird creature came out of the cave he was 10 feet high he let out an oooohhhhhhhhhhhhh imedeatly the wolves fled with feir."

7. Last
You've got to the last part of your story already! What do you need to tell me about before you finish?

Ideas
You need to get the children to return to the house. Do they have plans to come and stay at the house again?

Appendix B.4
Sentence help
Your last sentence is the most important one. Perhaps you could end with describing what is happening right now as the story comes to a close. The children could be packing up to go home or talking to the owner of the house.

Word help
You could end with remembering what happened whilst looking out towards the wood, glad or sad that the adventure is over.

Check
Check your first paragraph. Does your last one fit in with what you wrote there?

Response
we were scared he took a look at us then he gently hurtled us into his cave when we first went in it was dark then as we went further down was warm and it was lit with a fire we were amassaged to see a chimney . Daniel whispered I think its a stiganopithicus,(a what i whispered back) a stiganopithicus an early cave man oh that one i said daniel noticed a chestnut tree, we looked on the walls in some very different lane was some writing this is what it looked like $€$! when he came back we undertand the writing he did not seem to understand us. so i said what does this mean he took a deep breath and stood up proudly and said STIG his voice was deep . Daniel nudged me and said we have to go i was good in gogrophe so in the stone i wrote "[this means have) "(this means go .) he understood us when we got home dad said the eastate agant made a mistake he thought it was a holiday resort but its not its a house we paid for it. We go and see stig alot we understand i cant write loads more because this is the last page in my diary and its full. THE END

2nd Draft - Editing

Section 1
Editing prompts
Try not to use the word [and] more than once in a sentence. You could replace one [and] with a comma, or a full stop + another word that fits.

Check the long sentence that begins ["We're eleven"]. It may need breaking into shorter sentences with full stops.

You have used the word [going], try a better word or words.

Response
"Hi i'm Sarah hi i'm daniel we're twin's these are our dog shean and flora we're all even shean and flora going on holiday ." ["We're eleven years old we live at 38 meadow brooklane its beautiful here."] ["We're staying in a house on a hill in a wood tomorrow we'll be staying there for 6 months and we can't wait ." "this is my (Sarah's) diary."]

Section 2
Editing prompts
Try not to use the word [and] more than once in a sentence. You could replace one [and] with a comma, or a full stop + another word that fits.

Response
Daniels extremly rude bosy and naughty he wears his cap backwards he always wears jeans short sleeve T shirts 1 and a jumper tied round his weaist. he has blackish brownish hair. Sarahs kind ,gentel, loving, lovy ,perfectly, helpful and obdent, when people come round she wears pretty dreasses , were both inquisit. "Were in the car on our way to the camp. (20 hours later )were here!"

Section 3
Editing prompts
You have used the word [said ], try a better word like: suggested, whispered, joked, promised, interrupted, muttered or yelled.
You have used the word [then], try a better word like: next, quickly, afterwards, suddenly, immediately or miss then out altogether.

You may need a comma before the word [then].

You may need a comma before the word [but].

Response

"We're as excited as a birthday party. Dad told us to calm down next1 Mum suggested2 why don't you go and check out the woods,3 be careful.4 What a good idea 5 Mum we shouted:6 "7 Great idea 8 Emily interrupted9 "Dad:10 We're in the woods.11 It's dark, damp, dank and dreary 12 I13 (Sarah) hugged hold of 14 Daniel's arm when the wolves howls echoed15"

Section 4

Editing prompts

Check the long sentence that begins ["I called dow]. It may need breaking into shorter sentences with full stops.

You have used the word [big], try a better word like: large, huge, massive, enormous, vast, gigantic or endless.

You may need a comma before the word [so].

Response

"We approached a gigantic1 hole in the ground , Daniel was so excited that he crouched down and vanished down the hole before you could say stiganophithicus. 1 "I called down the hole daniel it fluded down and out in a few short secounds, it filled the forest with life crys of birds the rusly of the wind2. 3 Somthing moved behind me, daniel appered out of the hole with 10 wolves (a pack) behind him."

Section 5

Editing prompts

You have forgotten the [.] at the end of this paragraph.

Check the long sentence that begins ["The wolves see]. It may need breaking into shorter sentences with full stops.

Try not to use the word [and] more than once in a sentence. You could replace one [and] with a comma, or a full stop + another word that fits.

Check the long sentence that begins [then they opene]. It may need breaking into shorter sentences with full stops.

You have used the word [then], try a better word like: next, quickly, afterwards, suddenly, immediately or miss then out altogether.

You may need a comma before the word [then].

Response

"The wolves seemed to appear from THIN AIR 1 from behind every tree their eyes glinting there was a rush of wind and the glinting vanished2. 3 In their eyes there was sharp bit fire ,they were shaggy and wet. 4 Daniel whispeard there the wet drooling zombies (hes crazy about anything like that, quickly they opened their mouths and howled the forest was filled with the echo.7 It sounded like when our teacher (mrs crobboble shes mean) scrapes her fingers across the black board." 8 they pounced! then gave chase but...9

Section 6

Editing prompts

Try not to use the word [and] more than once in a sentence. You could replace one [and] with a comma, or a full stop + another word that fits.

Appendix B.4
Check the long sentence that begins ["I screamed and]. It may need breaking into shorter sentences with full stops.

Check the sentence beginning ["The wierd cre"]. It may need commas.

You have used the word [ then ], try a better word like: next, quickly, afterwards, suddenly, immediately or miss then out altogether.

You may need a comma before the word [then].

Response
"we came to a dead end. I stumbled and grazed my knee a wolf came near Daniel very bravely tried to chase him. he came back and pulled me up ". "I screamed", a strange creature pocked his head out of a rather small cave slowly a hand then another hand. "a shaggy large round fat head came out ". "The wierd creature came out of the cave. He was 10 feet hight he let out an oooohhhhhhhhhhhh imedately the wolves fled with feir."

Section 7
Editing prompts
You have forgotten the [.] at the end of this paragraph.

Check the long sentence that begins [we were scared]. It may need breaking into shorter sentences with full stops.

Try not to use the word [then] more than once in a sentence. You could replace one [then] with a comma, or a full stop + another word that fits.

Check the long sentence that begins [Daniel whisperd]. It may need breaking into shorter sentences with full stops.

Check the sentence beginning [when he came ba]. It may need commas.

Check the long sentence that begins [Daniel nudged me]. It may need breaking into shorter sentences with full stops.

Check the long sentence that begins [he understood u]. It may need breaking into shorter sentences with full stops.

Check the sentence beginning [he understood u]. It may need commas.

The words [THE END] need an exclamation mark after them!

You have used the word [ said ], try a better word like: suggested, whispered, joked, promised, interrupted, muttered or yelled.

You have used the word [ went ], try a better word or words.

You have used the word [ got ], try a better word or words.

You have used the word [ then ], try a better word like: next, quickly, afterwards, suddenly, immediately or miss then out altogether.

You may need a comma before the word [then].

You may need a comma before the word [so].

You may need a comma before the word [but].

Appendix B.4
Response
we were scared he took a look at us, 2quickly he gently hurtled us into his cave. 3 4When we first went in it was dark, as we went further down was warm and it was lit with a fire we were amassased to see a chimney. Daniel whispered I think its a stiganophithicus,(a what I whispered back) a stiganophithicus an early cave man oh that one I whispered back. 7Daniel noticed a chimney tree. 9We looked on the walls in some very different lane was some writing this is what it looked like $£$.1112When he came back we underlind the writing he did not seem to understand us. 13So I muttered under my brthe what does this mean he took a deep breath and stood up proudly and said STIG his voice was deep . Daniel nuded me and muttered we have to go i was good in gogorhe so in the stone i wrote, {'*'}(this means have) {'*'} {'*'} (this means go ). 16He understood us. Later when we were home dad promised !' the eastate agant made a mistake he thought it was a holiday resorte, its not its a house we paid for it. We go and see stig alot* i cant write loads more becase this is the last page in my diary and its full.THE END!

Final Draft

WHEN WE FIRST MET STIG

"Hi I'm Sarah hi I'm Daniel we're twin's these are our dogs shean and flora we're all even shean and flora going on holiday ", "We're eleven years old we live at 38 meadow brook lane it's beautiful here. We're staying in a house on a hill in a wood tomorrow we'll be staying there for 6 months and we can't wait. "This is my (Sarah's) diary."

Daniel's extremely rude bossy and naughty he wears his cap backwards he always wears jeans short sleeve T-shirts and jumper tied round his waist. He has blackish brownish hair. Sarah's kind, gentle, loving, lovely, perfectly, helpful and obedient, when people come round she wears pretty dresses. Were both inquisitive. "Were in the car on our way to the camp. (20 hours later) were here!"

"We're as excited as a birthday party. Dad told us to calm down next Mum suggested "why don't you go and check out the woods, be careful. What a good idea Mum we shouted!" Great idea Emily interrupted Dad ". We're in the woods, its dark, damp, dank and dreary I (Sarah) tugged hold of Daniel's arm when the wolves howled echoed!"

"We approached a gigantic hole in the ground, Daniel was so excited that he crouched down and vanished down the hole before you could say stiganophithicus. "I called down the hole Daniel it flooded down and out in a few short seconds, it filled the forest with life cries of birds the rustling of the wind. Something moved behind me, Daniel appeared out of the hole with 10 wolves (a pack) behind him."

The wolves seemed to appear from THIN AIR, from behind every tree their eyes glinting there was a rush of wind and the glinting vanished. In their eyes there was sharp bit fire, they were shaggy and wet. Daniel whispered there the wet drooling zombies (he's crazy about anything like that.) quickly they opened their mouths and howled the forest was filled with the echo. It sounded like when our teacher (mrs crobboble she's mean) scrapes her fingers across the black board. They pounced! Then gave chase but...

"We came to a dead end. I stumbled and grazed my knee a wolf came near Daniel very bravely tried to chase him he came back and pulled me up ". I screamed, a strange creature pocked his head out of a rather small cave slowly a hand then another hand. A shaggy large round fat head came out. "The weird creature came out of the cave. He was 10 feet height he let out an oooohhhhhhhhhhh immediately the wolves fled with fear."

We were scared he took a look at us, quickly he gently hurtled us into his cave. When we first went in it was dark, as we went further down was warm and it was lit with a fire we were amassased to see a chimney. Daniel whispered I think its a stiganophithicus,(a what I whispered back) a stiganophithicus an early cave man oh that one I whispered back .Daniel noticed a chestnut tree. We looked on the walls in some very different language was some writing this is what it looked like $£$. When he came back we underlind the writing he did not seem to understand us. So I muttered under my breath what does this mean he took a deep breath and stood up proudly and said STIG his voice was deep.
Daniel nudged me and muttered we have to go I was good in geography so in the stone I wrote, (**)(This means have) (**)(This means to) &&&(This means go). He understood us. Later when we were home dad promised! "the estate agent made a mistake he thought it was a holiday resort, its not its a house we paid for it". We go and see stig a lot I can't write loads more because this is the last page in my diary and its full. THE END!

Appendix B.4
THE MAGIC STONE

The king is sick so he sends his people to get the magic stone. The people set off. So one of them said let me help, so they did and he pushed it out of the way because he was a strong fighter. They carried on, they came to a cave. So they went in. Just then an enormous spider appeared, a man said I now how to get past it. He said thou shall not.... um so he throw a stone at it and it fell down dead. They went on and found a gap filling up with lather. An other man said jump on my motor bike so they did and he got them out by going through a different hole, then a fierce dragon appeared and started breathing fire and some one jumped up and chopped of his head. Then they came to a pile of three rocks and the rock began to speak "if you answer one question we will move number one what is the meaning of life" we don't now they said "that is correct you don't now" So they moved. The people went on and found a castle and went in. A bull came charging at them a wizard cast a spell on it and it stopped. They carried on past evenchlie they came to a lever so they pulled it hard. So then a gigantic tile slid away and they fell down very speedily the stone fell out of one of their pocket. They tried to grab it but no body could catch it. The wizard cast a spell to stop the stone from cracking he also cast a spell to stop him from hitting the ground then a sudden lining bolt came in front of them. There standing in front of them was the evil lord grin reaper. The wizard kept him away and the fighter got him with a punch to the face. Then he fell down and they ran and got away. Then they got to the forest and they started walking. One of them started coughing because there was poisonous gas. So they all started running away. They got to a big open field. "I'll show you the way if you give me ten bucks" said a stranger they just walked past. So they went on. They got to a big palace and went up to the guard and said, "we have the stone." "Let me see it" the guard said. "Here you are where is the stone?" "I've got it." So the King turned out all right.

1st draft with HARRY

The King is very ill. Travellers must fetch a special magic stone which will make him better. Your story should be mostly about the dangers they meet as they journey back to the Palace with the stone. Make a list of Ideas for this story in the box below.

Ideas
This should be a mysterious story where strange things sometimes happen. The stone will probably nearly get lost or stolen several times on the way. How? Will your characters be modern or from the past? Will they be young or old? Give them good names.

Sentence help
Write down any good phrases you can think of which you could use later like: The mission was far harder than they could ever have imagined.

Word help
explorers, rugged clothes, trailing cloaks, ventured, strode, lingered, plodded, ventured, trekked, dangerous, risky, challenge, quest, mission, strange.

Check
Come back to this or any other page to find ideas for what to write.
Response
The magic misticle stone boulders that are extremle heavy young strong travellers risky,dangerous quest,invisabiliy cloaks,ventured misticle dangerous path Gandolf,kili and Fili,Bilbo,Thoirin

1. Start
Set the scene. Describe the King's Palace. Perhaps the King is ill on a bed and the courtiers are discussing what should be done.

Ideas
Does the King sneeze or cough? Have a fever? Pale and weak? Do the servants speak loudly or in hushed whispers afraid to disturb the King? Is there a doctor examining the King?

Sentence help
Use similes to describe the size and splendour of the palace - as enormous as... As shiny as....as smooth as....magnificent like....cluttered like.....

Word help
Think of different adjectives to describe the palace like: vast windows, tiled ceiling, marble floor, sumptuous red velvet curtains, golden statues, magnificent candelabra,

Check
Does your description flow well. Did you use lots of adjectives and adverbs. How about a simile?

Response
The king's palace had windows the size of adult elephant and red velvit courtans. The ceiling is tiled and there are marble walls and a gold shining statues and a pool the size of a football pitch and in a locked room there is an invisabilete cloak (there are only three of them in the univers). the king is not so good,he is coufing,his blood presure is down and he as cold as an ice berg. Out of the room there are courtlers are wisbering that they are going to get someone to get the magic healing stone.

2. Character
Tell me more about how the travellers chosen to undertake the difficult task of getting the healing stone introduced themselves at the palace.

Ideas
Were they comical? Did they make everyone laugh? Did they behave strangely? Had they just dashed in from another adventure? What experience do they have for the task? Do they have to pass tests to prove how clever they are before the challenge?

Sentence help
Use dialogue to show how confident they are. "Of course I'm not scared, I killed a pit of snakes and wild wolves on my last mission!* or *It'll be easy, a piece of cake! I'll be back with that stone before you can say..." "Have no fear.....is here!"

Word help
Use adverbs to describe how things are done: waving his arms about excitedly, hopping quickly from one foot to another, juggling... Hastily...carelessly...cheekily...cleverly...loudly...

Check
Have you given the travellers interesting names? Have you made the travellers sound confident, brave and courageous about the challenge which lies ahead? Did they prove this in tests? How?
Response
People come from far away to prove themselves by going in an obstacle course. The people that made it were Gandolf, Fili and Kili, Bilbo and Thourin. Gandolf is a wizard, Thourin, Kili and Fili are dwarves and Bilbo is a hobbit (a small creature with a small nose and big eyes).

3. Setting
Tell me how the travellers prepare for the mission. Describe the first part of the journey. Where do they find the stone?

Ideas
What do the travellers wear? Do they take any special equipment to help them on their dangerous journey? Perhaps a map, a rope, a knife, food and water? What do they all think of the stone when they find it? Boring and dull until....

Sentence help
Build up to seeing the stone using two short sentences followed by a long. Like this: At last! There it was! The stone was lying on... in the middle of... next to....

Word help
gem, sparkled, shone, beautiful, gleamed, glistening, flashing, flickering, dazzling, glowing, quivering, as small as a... or as bright as... or it erupted like....

Check
Try to make the part where the healing stone is seen or touched for the first time really dramatic. Do lights flash and sparks fly? What sounds does it make?

Response
Gandolf packed: a map, food, clothes, water, a rope, a knife and a secret invisible cloak. Thourin took: the same but instead he took a magic Kantoi water, Kili and Fili packed: magic healing dust and out of it and Bilbo took every horse he could find. They set off and find a wood and evenchle they saw a glowing light and Gandolf touched it and sparks flew out and it crackled but he still got it.

4. Action
How far do the travellers get before nightfall? They will need to rest or shelter for the night. A cave would be a good place.

Ideas
Get the travellers to explore the cave. Get them to tell each other stories around the campfire.

Sentence
How about starting your next sentence with: Looking up... or Beyond them... At that moment... Meanwhile or Going closer or Not knowing what it was...

Word help
Darkness: darkness descended, still, quiet, cold, silent, flickering shadows, weird night sounds, silhouettes, silvery moonlight, stars winked. Campfire, flickering flames, smouldering, wisps of smoke spiralled upwards, blazing, roaring.

Check
Have you used at least 5 describing words here? Have you made their stories sound exciting enough do you think? Do your characters look or sound excited too? Do they talk quickly?

Response
They set up camp and sent Kili and Fili to look for a good cave. Twenty minutes later they came back and had found "an excellent cave not far from there", so Gandolf said "have you explored it" in a very fast voice, and they said "yes we have". So every one went. Looking up you could see horrible water dripping and the hole thing was covered in dark black.

Appendix B.5
Key (Cave)
The travellers could make an exciting discovery in the cave!

Ideas
The cave could lead to a chamber full of strange lights. This could be a trick of the wicked white witch who wants the travellers to fall asleep so she can steal the stone!

Sentence help
Make the cave’s chamber sound beautiful and dreamy. Use alliteration, metaphors and similes. Bright lights danced like... Specks of light hovered, then gently tumbled down as if...

Word help
sparkled, confetti, raindrops, blossom petals, pretty, beautiful, tired, sleepy, yawned, slumped, dropped, silent, still, hypnotized.

Check
Make sure the travellers get away from the cave with the precious stone!

Response
James did not want to respond to this prompt. As it was the end of the session, the prompt was deleted before James resumed writing.

5. Complication
I have a feeling something will go very wrong in your story soon! But maybe things don’t turn out to be quite as bad as they seemed at first.

Ideas
Perhaps something or someone could get lost or left behind or injured...Organise a search or rescue party! Or someone could land someone else into trouble by accident.

Sentence help
Build up the event with lots of sentences. Something could be glimpsed. Something could catch someone’s eye. Someone could hear something important. Someone could move something and discover...

Word help
Everyone will be anxious and worried at first... then relieved, pleased, thankful or ecstatic when the lost person is found.

Check
Did things happen too quickly? Could you have described what happened and the scene a bit more.

Response
Kili and Fili wanted to set up there clothes outside because when they were looking for a cave they fell in a poddle but Gandolf wouldn’t hear of it. Thorin said every one should go to sleep, so they did except Gandolf. Then goblins came runing and took all of them in to there den. Wile the goblins are planing to eat them Gandolf comes runing in with his invisabilate cloak on that he does not need because it is pitch black and chops of the King goblins head of.

6. Action
The travellers may stumble across a town on their journey back to the Palace.

Ideas
Perhaps they buy food or equipment for the rest of their journey. Perhaps they stay the night at an inn.

Sentence help
Turning the corner... Further up the road... Across the street... Opposite... Outside... Beyond... When... With...
Word help
comfortable warm beds, welcomed, exhausted, thankful, crowded, busy, hustle and bustle, noisy, market day, blare of music, loud chatter, shouted, pushed and shoved

Check
Do you think you could improve your description of the town? Imagine you have a camera to take some pictures. Describe what’s going on everywhere.

Response
They stop in the the inn for the night. When they get a drink they meet a man called Derwin that tells them to go back to the palic off the road. They go to sleep on big beds and the inn is seventy years old and built out of wood and falling apart and wile they do some people come and all of them go out of the window because they are dangerous.

7. Last
This is the end of your story. Get the travellers to return and give the stone to the King!

Ideas
Tell me about the welcome the travellers receive. Is a feast or banquet prepared? Is the King grateful? Is he dying? Can the stone heal him? How? Does the King recover slowly or quickly?

Sentence help
Your last sentence is the most important one! Perhaps you could end with the travellers beginning to describe their adventure - "First....Later...."

Word help
ill, feverish, temperature, pain, anxious, fragile, weak, pale, collapsed, revived, recovered, happy, smiled, jubilant, danced, rewarded, congratulated

Check
Have you explained everything that needed to happen before you ended your story? Check your first paragraph. Does your last one fit in with what you wrote there?

Response
On the way back they stayed on the road just like Derwin told them to. When they got back every one was over happy and the stone was rushed to the King and he is revived and there is a big feast. Then the King said he is very joyful and gives every one something, to Gandolf he gives a long wooden mast, to Thorin he gives a bow and arrows, to Kill and Fili he gave an axe, and to Bilbo he gave a magic sword that when goblins are near it glows. The End.

2nd Draft - Editing

Section 1
Editing prompts
Check the long sentence that begins [The ceiling is ]. It may need breaking into shorter sentences with full stops.

Try not to use the word [and] more than once in a sentence. You could replace one [and] with a comma, or a full stop + another word that fits.

You have used the word [ get ], try a better word or words.

You have used the word [ going ], try a better word or words.

You may need a comma before the word [ so ].

Response
1. The king's palace had windows the size of adult elephant and red velvit courtans. The ceiling is tiled.
2. There are marble walls, a gold shining statue and a pool the size of a football pitch.

Appendix B.5
room there is an invisabHete cloak (there are only three of them in the univers). The king is not so
good, he is coufing, his blood presure is down and he as cold as an ice beng. Out of the room there are
courtiers are wisbering that they should find someone to retrieved the magic healing stone.

Section 2

Editing prompts

Check the sentence beginning [People come fro]. It may need commas.

Try not to use the word [and] more than once in a sentence. You could replace one [and] with a
comma, or a full stop + another word that fits.

You have used the word [ big ], try a better word like: large, huge, massive, enormous, vast, gigantic
or endless.

You have used the word [ going ], try a better word or words.

Response

1People come from far away ,to prove them selves by exploring an obstickle cours. The people that
made it were Gandolf, Fill and Kili, Bilbo and Thourin. Gandolf is a wizerd, Thourin, Kili and Fill are
dwarves. 3 Bilbo is a hobbit (a small creacher with a small nose and vast eyes).

Section 3

Editing prompts

Try not to use the word [and] more than once in a sentence. You could replace one [and] with a
comma, or a full stop + another word that fits.

You often use the word [but]. Do you really need it?

You have used the word [ got ], try a better word or words.

You have used the word [ saw ], try a better word like: spotted, noticed, recognised, glimpsed,
watched, viewed or appeared.

You may need a comma before the word [but].

Response

Gandolf packed: a map, food, clothes, water, a rope, a knife and a secret invisabilete cloak. Thourin
took: the same 1 instead he took a magic Kantoi water, Kill and Fill packed: magic healing dust and
alot of it and Bilbo took every horse he could find. They set of then 2 find a wood . Evenchle they
noticed a glowing light so 3 Gandolf touched it suddenly sparkes flow out and it crakled, 4 but he still
cluched it.

Section 4

Editing prompts

Try not to use the word [and] more than once in a sentence. You could replace one [and] with a
comma, or a full stop + another word that fits.

You may need a question mark at the end of the question beginning [Have ].

You have three, or more short sentences in a row. You could link two of them with a connective like: if,
with, because, when, how, except, while, although.

You have used the word [ said ], try a better word like: suggested, whispered, joked, promised,
interrupted, muttered or yelled.

You have used the word [ thing ], try a better word to describe what the thing really is.
Response
they set up camp, 1 wile 2 Kili and Fili went 3 to look for a good cave, twenty minutes later they came back and had found an excellent cave not far from there, so Gandolf asked 4 have you explored it 5 in a very fast voice, and they replied 6 yes we have. So every one went. Looking up you could see horrible water dripping and the hole cave was covered in dark black.

Section 5
Editing prompts
Check the long sentence that begins [Wile the goblin]. It may need breaking into shorter sentences with full stops.

You often use the word [because]. Do you really need it?

You have used the word [ said ], try a better word like: suggested, whispered, joked, promised, interrupted, muttered or yelled.

You may need a comma before the word [but].

Response
Kili and Fili wanted to set up there clothes outside because when they were looking for a cave they fell in a puddle, 1 but Gandolf wouldn't hear of it. Thorin suggested 2 every one should go to sleep, so they did except Gandolf. Then goblins came running and took all of them in to there den. 3 Wile the goblins are planing to eat them Gandolf comes running in with his invisabilate cloak on 3 and chops of the King goblins head of.

Section 6
Editing prompts
Check the long sentence that begins [They go to slee]. It may need breaking into shorter sentences with full stops.

Try not to use the word [and] more than once in a sentence. You could replace one [and] with a comma, or a full stop + another word that fits.

You have used the word [ big ], try a better word like: large, huge, massive, enormous, vast, gigantic or endless.

You have used the word [ get ], try a better word or words.

Response
They stop in the inn for the night. When they have a drink they meet a man called Derwin that tells them to go back to the palic off the road. They go to sleep on large beds 3 , built out of wood and falling apart 3. Wile they do some poeple come and all of them go out of the window because they are dangerous.

Section 7
Editing prompts
Check the sentence beginning [on the way back]. It may need commas.

Try not to use the word [and] more than once in a sentence. You could replace one [and] with a comma, or a full stop + another word that fits.

Check the long sentence that begins [Then the King s]. It may need breaking into shorter sentences with full stops.

The words [The End] need an exclamation mark after them!

You have used the word [ big ], try a better word like: large, huge, massive, enormous, vast, gigantic or endless.
You have used the word [said], try a better word like: suggested, whispered, joked, promised, interrupted, muttered or yelled.

You have used the word [got], try a better word or words.

Response
On the way back,¹ they stayed of the road just like Derwin told them to. When they ran back every one was over happy and the stone was rushed to the King², he is revived so³ there is a massive⁴ feast. Then the King yelled⁵ he is very joyful.⁶ So he gives every one something, to Gandolf he gives a long wooden mast, to Thorin he gives a bow and arrows, to Kill and Fili he gave an axe, and to Bilbo he gave a magic sword that when goblins are near it glows. The End!

Final Draft

THE LIFE-RISKING ADVENTURE

The king's palace had windows the size of adult elephant and red velvet curtains. The ceiling is tiled. There are marble walls, a gold shining statue and a pool the size of a football pitch. In a locked room there is an invisibility cloak (there are only three of them in the universe). The king is not so good, he is coughing, his blood pressure is down and he as cold as an iceberg. Out of the room there are courtiers whispering that they could find someone to retrieve the magic healing stone.

People come from far away, to prove them selves by exploring an obstacle course. The people that made it were Gandolf, Fili and Kili, Bilbo and Thorin. Gandolf is a wizard, Thorin, Kili and Fili are dwarves. Bilbo is a hobbit (a small creature with a small nose and vast eyes).

Gandolf packed: a map, food, clothes, water, a rope, a knight and a secret invisabilete cloak. Thorin took: the same instead he took a magic Kantoi water. Kill and Fili packed: magic healing dust and alot of it and Bilbo took every horse he could find. They set of then find a wood. Eventually they noticed a glowing light so Gandolf touched it. Suddenly sparks flow out and it crackled, but he still clutched it.

They set up camp, wile Kill and Fili went to look for a good cave. Twenty minutes later they came back and had found "an excellent cave not far from there", so Gandolf asked "have you explored it?" in a very fast voice, and they replied "yes we have". So every one went. Looking up you could see horrible water dripping and the whole cave was covered in dark black.

Kili and Fili wanted to set up their clothes outside because when they were looking for a cave they fell in a paddle, but Gandolf wouldn't hear of it. Thorin suggested every one should go to sleep, so they did except Gandolf. Then goblins came running and took all of them in to there den. While the goblins are planing to eat them Gandolf comes running in with his invisabilate cloak on and chops of the King goblins head of.

They stop in the inn for the night. When they have a drink they meet a man called Derwin that tells them to go back to the palace off the road. They go to sleep on large beds, built out of wood and falling apart. While they do some people come and all of them go out of the window because they are dangerous.

On the way back, they stayed of the road just like Derwin told them to. When they ran back every one was over happy and the stone was rushed to the King, he is revived so there is a massive feast. Then the King yelled he is very joyful. So he gives every one something. To Gandolf he gives a long wooden mast, to Thorin he gives a bow and arrows, to Kill and Fili he gave an axe, and to Bilbo he gave a magic sword that when goblins are near it glows. The End!
Appendix B.6
Stephanie's journey stories

Control story

Prompt
The King is very ill. Travellers must fetch a magic stone, which will make him better. Your story should mostly be about the dangers they meet as they journey back to the Palace with the stone. Write your story in the box below.

Response

This is my journey story.

Hello! I am the king of England and I am very ill. The only thing that can cure me is the magic stone. I must get two of my people to journey to the east to find the stone and bring it back to cure me.

* I know who I will send I will send Luke and Christopher Clifton.*

Immediately the king sent for Christopher and Luke and told them what they must do and what they would need.

The next day at dawn they set off to find the magic stone. They traveled east until sun set then they set up camp. For they were going to set off again at the very crack of dawn. They carried on with this routine for another 18 weeks for after 18 weeks they finally reached the castle of which the stone lay in the highest room in the tallest tower. "We will split up you go left and I will go right to find the stairs to the magic stone ok?" said Luke. "Ok" said Christopher "And we will meet back here in 1 hour." "See you later then ok?" Said Luke "yep see you later" replied Christopher. So off they went in search of the stone. Luke was first to find a stairway but only half an hour after Luke had found that certain stairway Christopher found one. Fifteen minutes later they were both telling each other what they had found out. "We will go and see where your stair way leads to first" said Christopher. "Ok" replied Luke "lead the way" said Christopher. "Right you are" said Luke and off he went. Luke's stair way only lead to a dead end but Christopher's did not Christopher's lead to the very room they were looking for. The stone was in a chest that Christopher opened. He grabbed the stone and they both went down the stairs and out of the castle. It was very cold and dark outside.

Christopher got his torch out of his rucksack and turned it on. One hour later a very slimy, hairy and scary monster came out of the trees, hid behind a bush and watched Christopher and Luke. Just then the monster growled and Christopher heard it. "What was that?" asked Christopher in a very scared voice. "Probably just the wind" replied Luke. "No honestly it wasn't it was sort of a growling noise" said Christopher now in a very hurried way. "You try listening and see if you can hear it" said Christopher. The monster growled again and that time Luke heard it. "That noise?" he asked. "Yes that noise" replied Christopher. At that very moment the monster came out of the bush he was hiding behind, jumped on Luke and started attacking him. For a few minutes Christopher just stood still in amazement he was also very scared. Suddenly he remembered that Luke was his brother and that he must save him. He very quickly got the king's magic sword out of his rucksack and stabbed it into the monster. As the king said they took the dead monster back to the king. 18 weeks later they arrived at the king's palace they rushed to the king's bedroom and knocked on the king's door. "Enter" said the king. Christopher and Luke entered the room and handed the king the stone. The king put it on his heart and was once more well again.

1st draft with HARRY

Welcome
The King is very ill. Travellers must fetch a special magic stone which will make him better. Your story should be about the dangers they meet as they journey back to the Palace with the stone. Make a list of ideas for this story in the box below.

Ideas
This could be a magical story. It will involve going through dangerous places and nearly losing the stone! Will your characters be modern or from the past? Will they be young or old? Give them good names.
Sentence help
Write down any good phrases you can think of which you could use later like: the quest of a lifetime.

Word help
explorers, rugged clothes, trailing cloaks, ventured, strode, lingered, plodded, ventured, trekked, dangerous, risky, challenge, quest, mission, strange.

Check
Come back to this or any other page to find ideas for what to write.

Response
Rachael, Stephanie, Georgia, aged 10, hole and 2 monsters 1 monster down the hole. Trailing cloaks, ragged long skirts and tops. ventured along, dull and dusty road the quest of a lifetime

1. Start
Try starting your story with dialogue - someone saying something in the Palace.

Ideas
Perhaps the courtiers are talking to each other about the sick King. What's wrong with him? Perhaps someone announces that the King needs help. Perhaps some people are talking about going on the mission.

Sentence help
Someone could be asking a question something like: "Are you brave enough to undertake this challenge?" Who will reply?

Word help
Think of different words to use instead of said like: asked, interrupted, suggested, announced, proclaimed. A challenge, the quest, tough expedition, a reward, dangerous, risky, perilous,

Check
Did your opening sentence clearly explain what was happening or what the character is like? Have you shown what the other characters are like through the things they say?

Response
Do you think the king will live? asked Rachael. "I doubt it" replied Stephanie. "who will take his replacement if he does die?" asked Georgia. "I don't know" said Rachael. "let's go and ask him" suggested Stephanie. "OK let's go" "Do you know what is wrong with him?" asked Stephanie. "What's wrong with who?" asked the royal Doctor who happened to be passing by. "What is wrong with the king?" asked Rachael. "The King has got skin cancer" announced the docter.

2. Character
Tell me more about how the travellers chosen to undertake the difficult task of getting the healing stone introduced themselves at the palace.

Ideas
Were they comical? Did they make everyone laugh? Did they behave strangely? Had they just dashed in from another adventure? What experience do they have for the task? Do they have to pass tests to prove how clever they are before the challenge?

Sentence help
Use dialogue to show how confident they are. "Of course I'm not scared, I killed a pit of snakes and wild wolves on my last mission!" or "It'll be easy, a piece of cake! I'll be back with that stone before you can say..." "Have no fear.....is here!"
Word help
Use adverbs to describe how things are done: waving his arms about excitedly, hopping quickly from one foot to another, juggling... Hastily...carelessly...cheekily...cleverly...loudly...

Check
Have you given the travellers interesting names? Have you made the travellers sound confident, brave and courageous about the challenge which lies ahead? Did they prove this in tests? How?

Response
Knok knok "Come in said the King" The servants went into the kings room "what do you want" Asked the king. "we would like to know who will take your place if you die?" asked Georgia. "Hopefully nobody will because if you succeed in this task i will live for longer than i am going to at the moment. The task I am going to give you is, you must go to THE CASTLE OF DOOM and in the highest room in the tallest tower there is a closet and in that closet there is a chest of draws with 3 draws in it in the middle draw there is a large jewlery box and in that box is a stone and a piece of paper bring them both back to me and i will give you a reward.I would like you to set of at dawn please" said the king. "here are the things you will need and i will see you when you get back".

3. Setting
Tell me how the travellers prepare for the mission. Describe the first part of the journey. Where do they find the stone?

Ideas
What do the travellers wear? Do they take any special equipment to help them on their dangerous journey? Perhaps a map, a rope, a knife, food and water? What do they all think of the stone when they find it? Boring and dull until....

Sentence help
Build up to seeing the stone using two short sentences followed by a long. Like this: At last! There it was! The stone was lying on...in the middle of...next to....

Word help
gem, sparkled, shone, beautiful, gleamed, glistening, flashing, flickering, dazzling, glowing, quivering, as small as a...or as bright as...or it erupted like....

Check
Try to make the part where the healing stone is seen or touched for the first time really dramatic. Do lights flash and sparks fly? What sounds does it make?

Response
At half past 4 in the morning Rachael, Stephanie and Georgia got up and got ready to go. "You carry the clothes", Stephanie said to rachael, "i'll carry the swardes and things and you Georgia can carry the food and first aid kit". Ten minutes later........"are we all ready?" asked Rachael "yes" replied the other two. And off they went. Two hours later........ "are you cold" asked Georgia. "yes" Stephanie and Rachael replied in a stiff and frozen way."i think it is absoultly Freezing"said Rachael. "yes" agreed Stephanie.

4. Action
Which way will the travellers go next? Check the map! Perhaps someone suddenly appears from nowhere. Will this person tell them the right way to go? Or Is it a trick?

Ideas
Perhaps the map is magical....only showing the place they are heading towards...the rest is faded or disintegrating! Maybe they meet a magician or a wizard. What do they say to each other?

Sentence help
There was no going back! The only unlocked door was forwards! Taking a deep breath...Leading the way...Striding out...
Word help
north, south, east, west, near, beyond, uncharted territory, after, next to, opposite, further on, mountains, lake, town, woods, forest, route, path, explore, direction, compass,

Check
Have you described the map in enough detail so that I can picture it even though I can't see it?

Response
"Get the map out of your bag Stephanie" said Georgia. Stephanie got the map out and showed it to the others. "We need to go right" said Rachael. "No we don't" we need to go left" "No we don't" we need to go straight ahead". They started quarrelling and did not stop until they were satisfied that they had to go left. Five minutes later they were lost again. Just as they started quarrelling an old lady came by and asked them what was wrong.

5. Complication
The weather could change. This could cause problems.

Ideas
There could be a torrential downpour. There could be a storm with thunder and lightning. A tree could crash to the ground and cause an injury. The lightning could cause a fire. What will the travellers do?

Sentence help
Think of a simile to describe the lightning. Like these: The lightning is a great spear of light that comes shooting jaggedly out of the black sky. A crack of thunder banged like ... the rain clattered and pattered like ... raindrops bounced and danced.

Word help
black storm clouds gathered, raindrops bounced and danced, splashing, dripping, spotting, the groaning, moaning wind, the creak of a branch about to snap

Check
Have you made a feeling of drama here? Is it exciting enough? Have you used at least 5 words to describe the weather. How about a simile?

Response
"we can not decide which way to go" replied Georgia. "I think we should go right, georgia thinks we should go straight ahead and stephanie thinks we should go left" said Rachael. SUDDENLY there was a flash of lightning followed by two enormous rumbles. "I feel scared" complained Rachael. "me too" said Stephanie. "come on! it is only the clouds bumping together" reassured Georgia. "she's right think of it as a cloud going shopping bumping into another cloud and start chatting to each other" said the old woman. "Anyway where are you going?" asked the old woman "We are going to the castle of doom" replied Stephanie."I hope this thunder storm goes off soon" said Rachael.

6. Action
Where does their journey take the travellers to next? Perhaps they go through a wood?

Ideas
Listen! What sounds can be heard? The cry of a startled bird? The wind whistling through the branches? Tramping feet? Eerie echoes? Strange sounds coming from the undergrowth or the distance?

Sentence help
Use a simile to describe the trees like this: enormous trees, as big as giants, shook their branches. What do the branches look like? How could you describe the trees?
Word help
frosty, blustery, cool, dense trees, thick undergrowth, gnarled, the depths of the wood, thick undergrowth, bracken, dry crisp leaves, shiny, slippery leaves, spinning, tossing, fluttering, scattering, dancing, falling silently.

Check
Have you used at least 5 describing words in this paragraph? Have you written a simile to make a really powerful description?

Response
"I will call off the storm if you promise to bring me the stone of powers" then she disappeared but she did leave behind three broomsticks. Rachael Stephanie and Georgia got on a broomstick. Immediately the broomsticks flew into the air and went off to the castle of doom. The broomsticks took them to the stone room let the girls get off and went away. Stephanie found the two stones told the others and off they went back to the wood. Before they left Rachael noticed the lid of the box the stone of powers was in and it said....... WHOEVER HAS THIS STONE SHALL BE ABLE TO CONCER AND RULE THE WORLD. Rachael told the others and they all agreed to give it to the king and not the old lady.

7. Key (wood)
The wood turns out to be a dangerous place!

Ideas
Perhaps the trees come alive!

Sentence help
Use a simile or a metaphor to describe the trees, like this... The trees began to wake up. They stretched their... Give the trees an unusual name.

Word help
lifeless, languid, exercising, stretching, brown limbs, rhythmically, clutching, crowded, wicked faces, sinister, closer and closer.

Check
Make sure the travellers get away from the wood safely with the precious stone!

Response
SUDDENLY.....half way through the wood a monster came out of a hole, jumped onto georgia, slobbered all over her. "Get it before it attacks Georgia"said Stephanie. "it is after the stone" said Rachael. "Give me a sword" then Stephanie" said Rachael. Later....... "Thanks for saving me you two by the way it is getting cold don't you think we should find anywhere to stay for the night" asked Georgia."there is a hole here lets stay here for the night" replied Rachael. They went into the hole and another monster met there eyes. As quick as you can blink Rachael grabbed a sword and killed the monster.

8. Last
You've got to the last part of your story already! The travellers need to return safely and give the stone to the King!

Ideas
Is there a heroes welcome (a party?) for the travellers when they arrive back at the palace? How ill is the King? Will the stone work? How will it do this?

Sentence help
Your last sentence is the most important one! Perhaps you could end with describing what is happening right now as the story comes to a close.
Word help
ill, feverish, temperature, pain, anxious, fragile, weak, pale, collapsed, revived, recovered, happy, smiled, jubilant, danced, rewarded, congratulated

Check
Check your first paragraph. Does your last one fit in with what you wrote there?

Response
"At last were home!!!" exclaimed all three travelers. They rushed to the king's room. "Come in said the king and give me the stone quickly" said the king. They gave him the stone the king put it against his heart and was well again."Your reward" said the king "will be you can still live in the palace but you do not have to work for me any longer if you do not want to"

All three worked for the king but not on sundays for sundays were there resting day.

Section 1
Editing prompts
The words "[Asked Rachael] need an exclamation mark after them!

You have three, or more short sentences in a row. You could link two of them with a connective like: if, with, because, when, how, except, while, although.

You have used the word [ got ], try a better word or words.

You have used the word [ "Asked" ] to start three, or more, sentences. Vary some of your sentences by using a different word at the start or by changing the order of the words.

Response
"Do you think the king will live?" asked Rachael. "I doubt it," replied Stephanie. "Who will take his replacement if he does die?" asked Georgia. "I don't know," replied Rachael. "Let's go and ask him," suggested Stephanie. "OK, let's go." "Do you know what is wrong with him?" asked the royal doctor who happened to be passing by. "What is wrong with the king?" replied Rachael. "The King has skin cancer," announced the doctor.

Section 2
Editing prompts
Check the sentence beginning [Knok knok "Come". It may need commas.

You may need a question mark at the end of the question beginning [What ].

Check the sentence beginning ["We would like". It may need commas.

You may need a comma after the word [Hopefully ].

Check the long sentence that begins [The task I am g]. It may need breaking into shorter sentences with full stops.

Try not to use the word [and] more than once in a sentence. You could replace one [and] with a comma, or a full stop + another word that fits.

You have used the word [ said ], try a better word like: suggested, whispered, joked, promised, interrupted, muttered or yelled.

You have used the word [ went ], try a better word or words.

You have used the word [ get ], try a better word or words.

Appendix B.6
You have used the word [ going ], try a better word or words.

**Response**

Knok, knok, "Come in," answered the King. The servants glided into the king's room. "What do you want?" asked the king. "We would like to know, who will take your place if you die?" asked Georgia. "Hopefully, nobody will because if you succeed in this task I will live for longer than I am heading for at the moment. The task I am going to give you is, you must go to THE CASTLE OF DOOM. In the highest room in the tallest tower there is a closet, in that closet there is a chest of drawers with 3 drawers in. In the middle drawer there is a large jewellery box, in that box there is a stone and a piece of paper bring them both back to me and I will give you a reward. I would like you to set of at dawn ordered the king. "Here are the things you will need and I will see you when you arrive back".

**Section 3**

**Editing prompts**

Try not to use the word [ and ] more than once in a sentence. You could replace one [ and ] with a comma, or a full stop + another word that fits.

You may need a question mark at the end of the question beginning [ Are ].

You have used the word [ said ], try a better word like: suggested, whispered, joked, promised, interrupted, muttered or yelled.

You have used the word [ got ], try a better word or words.

**Response**

At half past 4 in the morning Rachael, Stephanie and Georgia woke up and got ready to go. "You carry the clothes", Stephanie ordered to Rachael, "I'll carry the swords and things and you Georgia can carry the food and first aid kit". Ten minutes later............. "Are we all ready?" asked Rachael "Yes" replied the other two. Off they went. Two hours later............. "Are you cold?" asked Georgia. "Yes" Stephanie and Rachael replied in a stiff and frozen way, "I think it is absolutely freezing" complained Rachael. "Yes" agreed Stephanie.

**Section 4**

**Editing prompts**

Check the sentence beginning [ "No we don't we. It may need commas.

You have used the word [ said ], try a better word like: suggested, whispered, joked, promised, interrupted, muttered or yelled.

You have used the word [ got ], try a better word or words.

**Response**

"Get the map out of your bag Stephanie" suggested Georgia. Stephanie took the map out and showed it to the others. "We need to go right" muttered Rachael. "No we don't, we need to go straight ahead". They started quarrelling and did not stop until they were satisfied that they had to go left. Five minutes later they were lost again. Just as they started quarrelling an old lady came by and asked them what was wrong.

**Section 5**

**Editing prompts**

Check the sentence beginning [ " asked the old. It may need commas.

You have used the word [ said ], try a better word like: suggested, whispered, joked, promised, interrupted, muttered or yelled.

You have used the word [ going ], try a better word or words.
"we can not decide which way to go" replied Georgia. "I think we should go right, georgia thinks we should go strait ahead and stephanie thinks we should go left" told Rachael. SUDDENLY there was a flash of lightening followed by two enormas rumbles. "I feel scared" complained Rachael. "me too" agreed Stephanie. "come on! it is only the clouds bumping together" reassured Georgia. "she's right think of it as a cloud going shopping bumping into another cloud and start chatting to each other" suggested the old woman. "Anyway where are you traveling to?" asked the old woman. "We are traveling to the castle of doom," replied Stephanie. "I hope this thunder storm goes off soon" complained Rachael.

Section 6
Editing prompts
Check the sentence beginning ["I will call off"]. It may need commas.

You may need a comma after the word [Immediately].

Check the sentence beginning [WHOEVER HAS THIS]. It may need commas.

Try not to use the word [and] more than once in a sentence. You could replace one [and] with a comma, or a full stop + another word that fits.

You have three, or more, sentences in a row of almost the same length. Try breaking one of them into shorter sentences to vary them.

You have used the word [ went ], try a better word or words.

You have used the word [ got ], try a better word or words.

You have used the word [ get ], try a better word or words.

You have used the word [ then ], try a better word like: next, quickly, afterwards, suddenly, immediately or miss then out altogether.

You may need a comma before the word [then].

You may need a comma before the word [but].

Response
"I will call off the storm, if you promise to bring me the stone of powers" then, she disappeared but she did leave behind three broomsticks. Rachael Stephanie and Georgia hopped on a broomstick. Immediately, the broomsticks flew into the air, took the servants to the castle, dropped the servants off in the stone room and dissapeared. Stephanie found the two stones told the others and off they set back to the wood. Before they left Rachael noticed the lid of the box the stone of powers was in and it said....... WHOEVER HAS THIS STONE, SHALL BE ABLE TO CONCER AND RULE THE WORLD. Rachael told the others and they all agreed to give it to the king, not the old lady.

Section 7
Editing prompts
The word [SUDDENLY] needs an exclamation mark after it!

The word [Later] needs an exclamation mark after it!

Check the sentence beginning ["Thaks for savi]. It may need commas.

You have used the word [ said ], try a better word like: suggested, whispered, joked, promised, interrupted, muttered or yelled.

You have used the word [ went ], try a better word or words.
You have used the word [then], try a better word like: next, quickly, afterwards, suddenly, immediately or miss out altogether.

You may need a comma before the word [then].

Response
SUDDENLY!......half way through the wood a monster came out of a hole, jumped onto georgia and slobbered all over her.
"Get it before it attacks Georgia," yelled Stephanie. "It is after the stone" exclaimed Rachael. "Give me a sword," whispered Rachael.
Later........"Thanks for saving me you two, by the way it is getting cold, don't you think we should find anywhere to stay for the night?" asked Georgia. "There is a hole here lets stay here for the night" replied Rachael. They dived into the hole and another monster met there eyes. As quick as you can blink Rachael grabbed a sword and killed the monster.

Section 8
Editing prompts
Check the long sentence that begins ["Will be you ca]. It may need breaking into shorter sentences with full stops.

Check the sentence beginning ["Will be you ca]. It may need commas.

You may need a question mark at the end of the question beginning [Will ].

Try not to use the word [but] more than once in a sentence. You could replace one [but] with a comma, or a full stop + another word that fits.

You often use the word [but]. Do you really need it?

You have used the word [ said ], try a better word like: suggested, whispered, joked, promised, interrupted, muttered or yelled.

You may need a comma before the word [but].

Response
"at last were home!!!" exclaimed all three travelers. They rushed to the king's room. "Come in and give me the stone quickly" hurried along the king. They gave him the stone the king put it against his heart and was well again. "Your reward" rewarded the king. "Will be, you can still live in the palace. You do not have to work for me any longer if you do not want to" All three worked for the king but, not on sundays for sundays were there resting day.

Final Draft
THE JOURNEY THROUGH THE WOOD.


Knock, knock, "Come in," answered the King. The servants glided into the king's room. "What do you want?" asked the king. "We would like to know, who will take your place if you die?" asked Georgia. "Hopefully, nobody will because if you succeed in this task I will live for longer than I am heading for at the moment. The task I am going to give you is, you must go to THE CASTLE OF DOOM. In the highest room in the tallest tower there is a closet, in that closet there is a chest of draws with 3 draws in. In the middle draw there is a large jewellery box, in that box there is a stone and a piece of paper bring them both back to me and I will give you a reward. I would like you to set of at dawn," ordered the king. "Here are the things you will need and I will see you when you arrive back".

Appendix B.6
At half past 4 in the morning Rachael, Stephanie and Georgia woke up and got ready to go. "You carry the clothes", Stephanie ordered to Rachael, "I'll carry the swords and things and you Georgia can carry the food and first aid kit". Ten minutes later........."are we all ready?" asked Rachael "yes" replied the other two. Off they went. Two hours later... "Are you cold?" asked Georgia. "Yes" Stephanie and Rachael replied in a stiff and frozen way. "I think it is absolutely Freezing" complained Rachael. "Yes," agreed Stephanie.

"Get the map out of your bag Stephanie" suggested Georgia. Stephanie took the map out and showed it to the others. "We need to go right," muttered Rachael. "No we don't, we need to go left" "No we don't, we need to go strait ahead". They Started Quarrelling and did not stop until they were satisfied that they had to go left. Five minutes later they were lost again. Just as they started quarrelling an old lady came by and asked them what was wrong.

"We can not decide which way to go," replied Georgia. "I think we should go right, Georgia thinks we should go strait ahead and Stephanie thinks we should go left," told Rachael.

SUDDENLY there was a flash of lightening followed by two enormous rumbles. "I feel scared," complained Rachael. "Me too" agreed Stephanie. "Come on! It is only the clouds bumping together" reassured Georgia. "She's right think of it as a cloud going shopping bumping into another cloud and start chatting to each other," suggested the old woman. "Anyway where are you travelling to?" asked the old woman. "We are travelling to the castle of doom," replied Stephanie. I hope this thunder storm goes off soon" "I will call off the storm, if you promise to bring me the stone of powers" suddenly, she disappeared. But, she did leave behind three broomsticks. Complained Rachael.

Rachael, Stephanie and Georgia hopped on broomsticks. Immediately, the broomsticks flew into the air. The broomsticks took them to THE CASTLE OF DOOM, dropped them off in the stone room and disappeared. Stephanie found the two stones, told the others and off they set back to the wood. Before they left Rachael noticed the lid of the box the stone of powers was in and it said...

WHOEVER HAS THIS STONE, SHALL BE ABLE TO CONQUER AND RULE THE WORLD. Rachael told the others and they all agreed to give it to the king, not the old lady.

SUDDENLY...half way through the wood a monster came out of a hole, jumped onto Georgia and slobbered all over her.

"Get it before it attacks Georgia," yelled Stephanie. It is after the stone," exclaimed Rachael. "Give me a sword," Stephanie "whispered Rachael. Later..."Thanks for saving me you two, by the way it is getting cold, don't you think we should find anywhere to stay for the night," asked Georgia. "There is a hole here lets stay here for the night" replied Rachael. They dived into the hole and another monster met their eyes. As quick as you can blink Rachael grabbed a sword and killed the monster.

"At last were home!!" exclaimed all three travellers. They rushed to the king's room. "Come in and give me the stone quickly" hurried along the king. They gave him the stone the king put it against his heart and was well again. "Your reward" rewarded the king "will be, you can still live in the palace. You do not have to work for me any longer if you do not want to" All three worked for the king but, not on Sundays for Sundays were there resting day.

Appendix B.6
Appendix B.7
Rachael's pirate stories

Prompt
A pirate story would be fun to write. Write your story in the box below.

Response

Captain Richard
Welcome aboard the spicy Island. That is the name of our ship. We call it the spicy Island because we go to the spice islands for spicies to keep our king happy. That reminds me of a long time ago when us sailors went on a trip to get some spicies and we were in a mess with one of the crew. I shall begin if you don’t mind.

Hello I am Bob the ships second command guy if you know what I mean.
Hello I am Stewart the ships driver.
Hi I am Fatso the ships cook.
Hello I am Betsy the ships cleaner.
Hi I am Wolly the ships entertainer.

Come on lads lets get some work done.

Oh hello I am the captain and I am called Richard.

We are the crew of the spicy Island they shouted to the people they had been introducing them selves to.
Now I mean it lets get some work done lads says Richard again as they leave the harbour. Oh how amazing thought Betsy. I am not a lad so I don’t have to work no more thought Betsy. She pulled out a chair and watched the sea splashing at the sides of the ship. She called down to Fatso a strawberry cocktail please. The next thing she was being waited on by the crew. There was a rumbling and a tumbling they all knew what it was it was Captain Richard coming up the stairs to the deck. He had been in the galley sniffing dinner burning. He wondered what to do when he smelt dinner burning. Why are you all waiting on Betsy? Betsy explained how she didn’t do any work because she wasn’t a lad. So the captain started to always say ladies and gents.

I know that wasn’t a very long story but I am called Richard and I had to change what I said because of that stupid Betsy. They were the good old days when all I did was order people to do things and lye in the sun.

Bye from the spicy Island.

1st draft with HARRY

Welcome
I am sure you will enjoy writing a pirate story. List some words for this story in the box below.

Ideas
Pirate stories are usually funny because the pirates do silly things. What silly things will the pirates do in your story? What will the pirates be like? Stupid? Clever? Neat and tidy? Clumsy?

Sentence help
Think of phrases that usually are written in pirate stories like: "Make 'em walk the plank" or "15 men on a dead man's chest". There's often a parrot which says "Pieces of eight".

Word help
crew, gang, sailors, rough tough, dirty, ragged, rigging, hammock, crows nest, deck, cabin, pistol, cutlass, treasure, jewels, island, palm tree, rations, stowaway, round portholes, triangular sails, tall rusty funnel.

Check
Come back to this or any other page to find ideas for what to write.

Response
The pirates are called the crew, the dusty crew. There is seven of them. They go on their scruffy ship it is called the scruffy ship because it is really really scruffy. It has all these things in it: It has a rusty funnel pointing high in the sky. There is a rickety hammock. The galley is really dirty and untidy.

1. Start
Set the scene. Your story could start with the pirates on board ship, or perhaps walking along the quay towards their ship. Tell me what is happening.

Ideas
Describe the scene as if you are videoing it. Give lots of detail ... Is it a big ship? Is it shabby or neat? What is its name? What do the crew look like? Are there lots of other ships down at the quay?

Sentence help
The captain put his telescope to his eye and looked around ... Describe everything he saw ... In the distance ... Further away ... On the horizon ...

Word help
crows nest, sleeping sailors, calm, flat, blue sea, First mate at the tiller, skull and crossbones flag flying, the crew, in hammocks, scrubbing the deck, climbing the rigging, polishing the brass ...

Check
Have you made the start of your story interesting enough? Have you written about at least 3 parts of the ship? Is it a scruffy or smart ship? Have you said what shape the portholes and sails are etc?

Response
"There she is, she's beautiful " the captain sighed. The captain of the good ship Golden Girl was looking at his rusty dirty ship and he was calling it beautiful! The crew were saying their goodbyes to there family and friends.
"All aboard" the captain shouted.
Everyone said bye for the last time and walked along falling down quay. The crossbone flag was being pulled to the sky. As soon it was up they were away. They all started to sing we are all on our way yo ho ho and a bottle of grog. The captain looked threw is telescope and ....

2. Action
One of the pirates could cause an accident by being lazy or clumsy about one of his jobs.

Ideas
Perhaps a pirate doesn't tie the ship up properly so it floats away just when they need it! Or a pirate scrubs the deck until it is slippery making all the pirates fall over! Or a pirate (who can't swim) falls overboard!

Sentence help
What does the captain say to the pirate... try using alliteration like this "Floundering flatfish..." "Suffering... "Blundering ..."Jumping...."Galloping...""Shivering..."

Word help
chaos, bedlam, confusion, pirates piled on top of each other, falling like... floating away, drifting aimlessly, out of control.

Check
Did you make this a funny scene?
"Shiver me timbers that ships just disappeared into thin air" the captain cried. The first mate thought shall I keep going to see if it happens to us (he was the driving the old rusty ship). The two lazy twins were also part of the crew and all they were doing was lying in torn up hammocks and staring at the little bits of sand where the palm trees grew tall. What they didn't know was that there was a big wave coming. The wave came right up to the sides of the ship. It had to be a very big wave to get all the way up to the top of the sides of the ship because it was a very tall ship. Hammocks swayed and knocked the two lazy twins into the sea.

3. Key (pirate)
Describe the pirates some more.

Ideas
Think about their characters. One could be clever, stupid, useless clumsy, lazy, fierce neat and tidy, an animal lover. What do they do which shows their character?

Sentence help
Don't be afraid of....he's not frightening really! He's so stupid, when he's asked to bring the sail down he...They couldn't cope without....because...

Word help
untidy', dirty, lazy, ragged, ruthless, rough, bloodthirsty crew, bloodcurdling laugh, enormous, vicious, cruel, horrible, stupid, scarred face, wooden leg, hook, heave ho me hearties, shiver me timbers, curdling custard, stone the crows,

Check
Have you used at least 3 adjectives (describing words)?
Have you used any adverbs to explain how things are done like quickly, lazily, in a flash etc.

Response
The other pirates all gasped and began to laugh as the two pirates got hold of the sides of the ship and worked their way back onto the deck. They were dripping wet with salty sea water. One of the crew said to his brother that should teach them not to be lazy again. Bang! The ship had hit something and disappeared into thin air.

4. Action
The pirates could make a mistake and end up in the wrong place where they won't find any treasure!

Ideas
Perhaps they had the map up-side down? Or perhaps they didn't understand the symbols? Perhaps it was written in French which they didn't understand.

Sentence help
Make the pirates argue something like this "It's all your fault." "No, it isn't" "It wouldn't have happened if you hadn't..." "Oh, no!" "Ah, is that what you think?"

Word help
complained, moaned, groaned, grumbled, bragged, boasted, crossly, fuming, puzzled, scratching his head.

Check
How will the pirates sort themselves out?

Response
It is all your fail you two if you weren't so lazy you wouldn't have fell over board" argued the working brothers they were arguing with the lazy twins. The captain left them to argue and went to look threw his telescope to see what he could see. All of a sudden,..."shark" screamed the captain. Every one stopped arguing and ran to help trying to get the boat to go faster and to steer the boat away from the shark.
5. Key (ship)
Describe the ship some more. Tell me more about what each pirate is doing on different parts of the ship.

Ideas
Think about what each pirate is doing... the captain who gives the orders, the cabin boy, the cook in the galley, the sailors who keep a look out, clean the deck or mend the sails and clothes.

Sentence help
What do the pirates say to each other as they go about their work? "Aye, Aye Cap’n" "Yes, sir" "Ah..." "Oh..."

Word help
rigging, sails, crows nest, galley, cabin, port holes, anchor, deck, a fine sight, fearful flag, hoisted the flag.

Check
Have you written about at least 3 pirates? Have you made it clear what each pirate is like and what jobs they have? Do the pirates have good names?

Response
Know one was actually helping because they were all trying to steer away from the shark. Nobody noticed what was going to happen. They were steering themselves into a sea rock. Then they all saw what happened they drove themselves through the rock.

6. Last
You’d better start bringing your story to an end. You may need to sort a few things out first.

Ideas
You could end with the pirates talking to each other about what has happened and what they thought of the adventure they had. Which pirate will have the last word?

Sentence help
End with something like..."I knew the Cap’n would never let us down!" Or "Cheers! Here’s to the next adventure!" Or "A pirate’s work is never done!"

Word help
Other words for said: commented, reflected, thought, wished, pleased, delighted,

Check
Your last sentence is really important. Make sure you think of a good one! Look back to the beginning of your story. Have you tied up all the loose ends and explained what happened as result of the adventure?

Response
"Ahh! You didn't get us out of this one did you" part of the dusty crew smiled at the brainiest person onboard one of the twins (it was a smirky smile). The door of which they had ridden into suddenly closed and caught the sharks nose in the door. The dusty crew began to cheer and then silence fell. In front of them was what they had been looking for TREASURE!!!!!!! The treasure gleamed in front of them the silence was broken (the crew had to speak sometime) because what they had seen was what they wanted so altogether (not knowing that another pirate or other pirates were going to say it as well) they all said "lets get it". They knew they would have to use the crane anchor thing to get it but so they didn’t mind working for treasure.
"We are going to get that treasure yo ho ho and a bottle of grog" they sang together. They worked for hours but they knew there had to be a lot of treasure because the chest was so heavy. Finally they had it they all just stared. The captain didn’t know about any of this he had thought they were so out of luck so he had gone to bed. The captain was awakened by cheers of joy. He sleepily walked to the poop deck to see what was going on. He was overjoyed on what he had seen and began to dance and sing with the crew.

*************************

Appendix B.7
"Well cheers to our new lives" exclaimed the captain. In a few weeks time they were living in gold.

Section 1
Editing prompts
You have used the word [said], try a better word like: suggested, whispered, joked, promised, interrupted, muttered or yelled.

You have used the word [walk], try a better word like: amble, plod, dash, jog, crawl, wander, clamber, strode or ventured.

You have used the word [The] to start three, or more, sentences. Vary some of your sentences by using a different word at the start or by changing the order of the words.

Response
"There she is, she's beautiful" the captain sighed. Captain Paul of the good ship Golden Girl was looking at his rusty dirty ship and he was calling it beautiful! Family and friends of the crew were saying goodbye.

"All aboard" the captain shouted. Everyone said bye for the last time and marched along falling down quay. The crossbone flag was being pulled to the sky. As soon it was up they were away. They all started to sing we are all on our way yo ho ho and a bottle of grog. Captain Paul looked threw is telescope and.....

Section 2
Editing prompts
Check the long sentence that begins [The two lazy tw]. It may need breaking into shorter sentences with full stops.

Check the sentence beginning ["Shiver me ti]. It may need commas.

Check the sentence beginning [The first ma]. It may need commas.

Try not to use the word [and] more than once in a sentence. You could replace one [and] with a comma, or a full stop + another word that fits.

You may need a question mark at the end of the question beginning [What].

You have used the word [big], try a better word like: large, huge, massive, enormous, vast, gigantic or endless.

You have used the word [get], try a better word or words.

You have used the word [going], try a better word or words.

You have used the word [The] to start three, or more, sentences. Vary some of your sentences by using a different word at the start or by changing the order of the words.

Response
"Shiver me timbers, that ships just disappeared into thin air" the captain cried. The first mate thought, "shall I keep moving" to see if it happens to us (he was driving the old rusty ship). The two lazy twins were also part of the crew. All they were doing was lying in torn up hammocks, staring at the little bits of sand where the palm trees grew tall. What they didn't know was that there was a large wave coming. Then the wave came right up to the sides of the ship. It had to be a very large wave to reach all the way up to the top of the sides of the ship because it was a very tall ship. Hammocks swayed and knocked the two lazy twins into the sea.
Section 3
Editing prompts
Try not to use the word [and] more than once in a sentence. You could replace one [and] with a comma, or a full stop + another word that fits.

You often use the word [pirate]. Try an alternative like: gang, bloodthirsty crew, shipmates, dastardly bunch.

You have used the word [said], try a better word like: suggested, whispered, joked, promised, interrupted, muttered or yelled.

You have used the word [got], try a better word or words.

Response
The other mates\(^1\) all gasped and began to laugh as the two pirates grabbed\(^8\) hold of the sides of the ship and worked their way back onto the deck. They were dripping wet with salty sea water. One of the crew whispered\(^d\) to his brother that should teach them not to be lazy again. Bang! The ship had hit something and disappeared into thin air.

Section 4
Editing prompts
Check the sentence beginning [*it is all you*]. It may need commas.

Try not to use the word [and] more than once in a sentence. You could replace one [and] with a comma, or a full stop + another word that fits.

You have used the word [went], try a better word or words.

You have used the word [get], try a better word or words.

You have used the word [ran], try a better word like: dashed, rushed, marched, strode or skipped.

You may need a comma before the word [so].

Response
"It is all your fault you two,\(^1\) if you weren't so lazy you wouldn't have fallen over board\(^a\) argued the working brothers.\(^2\) \(^3\) They were arguing with the lazy twins. The captain left them to argue and looked through his telescope to see what he could see. All at once... "shark" screamed the captain. Every one stopped arguing and dashed\(^a\) to help trying to get the boat to go faster,\(^6\) steering the boat away from the shark.

Section 5
Editing prompts
You have used the word [saw], try a better word like: spotted, noticed, recognised, glimpsed, watched, viewed or appeared.

You have used the word [going], try a better word or words.

You have used the word [then], try a better word like: next, quickly, afterwards, suddenly, immediately or miss then out altogether.

Response
Know one was actually helping because they were all trying to steer away from the shark. Nobody noticed what would be happening to them in a matter of seconds.\(^1\) They were steering themselves into a sea rock. Soon after they all knew what was happening they had driven themselves through the rock. They thought they had escaped from the shark because a door had opened and let them into a secret hiding place really. So it looked like they were safe, but the shark would not give up........
Section 6
Editing prompts
Check the long sentence that begins [You didn't get]. It may need breaking into shorter sentences with full stops.

Check the long sentence that begins [The treasure gl]. It may need breaking into shorter sentences with full stops.

Check the sentence beginning [They knew they ]. It may need commas.

You may need a comma after the word [Finally].

Check the sentence beginning [The captain did]. It may need commas.

Try not to use the word [so] more than once in a sentence. You could replace one [so] with a comma, or a full stop + another word that fits.

Check the sentence beginning [He sleepily wal]. It may need commas.

You may need a comma after the word [Well ].

You often use the word [so]. Do you really need it?

You have used the word [ said ], try a better word like: suggested, whispered, joked, promised, interrupted, muttered or yelled.

You have used the word [ walk], try a better word like: amble, plod, dash, jog, crawl, wander, clamber, strode or ventured.

You have used the word [ get ], try a better word or words.

You have used the word [ going ], try a better word or words.

You have used the word [ thing ], try a better word to describe what the thing really is.

You have used the word [ then ], try a better word like: next, quickly, afterwards, suddenly, immediately or miss out altogether.

You may need a comma before the word [then].

You may need a comma before the word [so].

You may need a comma before the word [but].

You have used the word [The] to start three, or more, sentences. Vary some of your sentences by using a different word at the start or by changing the order of the words.

Response
"Ahh! You didn't get us out of this one did you": Part of the dusty crew smiled at the brainiest person onboard. It was one of the brainy twins. One of the lazy twins was telling the brainy twin, "It had been a smery smile. The shark was still chasing the crew, but the door closed and trapped his nose. The dusty crew began to cheer and suddenly silence fell. In front of them was what they had been looking for TREASURE!!!!!!! It gleamed in front of them. Suddenly the silence was broken. The crew had to speak sometime because what they had seen was what they wanted.

Altogether (not knowing that another pirate or other pirates were going to say it as well) they all screamed "lets grab it". They knew they would have to use the crane anchor to get it. But so, they didn't mind working for treasure.

"We are going to get that treasure yo ho ho and a bottle of grog" they sang together. They worked for hours, but they knew there had to be a lot of treasure because the chest was very heavy. Finally, they had it, they all just stared. Captain Paul didn't know about any of this,
had thought they were so out of luck and he had gone to bed. Captain Paul was awakened by cheers of joy. He sleepily plodded to the poop deck, to see what was happening. He was overjoyed on what he had seen and began to dance and sing with the crew.

***********************

"Well, cheers to our new lives" exclaimed the captain. In a few weeks time they were living in gold.

Appendix B.7
Appendix B.8
Lauren's space stories

Control story

Prompt
Write a space story in the box below

Response

100 Space times ago
I was ready for take off 5,4,3,2,1, go there was lots of smoke I was zooming into space it was fun I got out I thort wow this is better than a milky bar I kept walking I seen aliens were everywhere I think I should get out of here

1st draft with HARRY

Welcome
Let's write a space adventure story. Make a list of useful words and ideas to use in your story.

Ideas
Think about 2 or 3 characters you could have and what might happen to them. Who will be the main character. Think of good names for the characters.

Sentence help
Write down any good sentences you can remember from stories you have read, which you could use like: He thought he might live to regret his decision. (What decision might he wish he hadn't made?)

Word help
Words to describe space: beyond the stars, far away from Earth, unending darkness...

Check
Come back to this or any other page to find ideas for what to write.

Response
up in space there was darkness stars far away from earth two girls and one boy jon hayley and Hannah they went on a trip to mars jon gets out and they lose him

1. Start
You could start your story with something someone says. They could be in the middle of doing something? What?

Ideas
Who could be talking? Someone who is building a rocket? Ground control? An astronaut? Children playing a game on the computer? An alien? Who will reply?

Sentence help
You can vary a sentence by putting said in a different place - perhaps in the middle of what someone says.

Word help
Think of different words to use instead of said like: called, ordered, shouted, interrupted.

Check
Did your opening sentence clearly explain clearly what was happening or what the character is like?
Response
this is a good computer game jon time for bed jon said mum by next day I had the funniest dream lisen we where in a rocket we went to mars I got out and you lost me you went looking all over mars but you still could not find me

2. Setting
Describe what it is like in space. Make me feel like I am really there. Is it different to how it looks from Earth?

Ideas
Use similes or metaphors for a really powerful description. Finish this one or make up your own -
Planets hang motionless on invisible threads looking like...

Sentence help
Try asking a question for a change or 2 or 3 questions in a row like this: "What was that? Was it a UFO? Did you see it?"

Word help
Use lots of adjectives to describe the different things which can be seen - distant stars, huge craters, a gleaming blinding light, meteors, luminous lights. See if you can think of some others.

Check
Could you add anything to your description? How about a simile or a metaphor that starts like this:
The stars glistened like....

Response
it was really scary i wish you were there i seen lots of alines they let me have a tea party with them it was fun i seen luminous lights. You were in a rocket and you came to me stars glistened like bright yellow lights

3. Character
Tell me more about the main characters in your story. Have you given them good names?

Ideas
Tell me what they are doing or thinking or planning or saying.

Sentence help
You can show what someone is like by what they say like "I'll go first." suggested Tim "I'm not scared"

Word help
Use words which show how someone feels. They could stutter or shout perhaps!

Check
Make sure your characters act like this in the other parts of your story? You may want to come back to this page for ideas later on in your story.

Response
I will go first suggested jon im not scared i am wissperd mum let go back to the rocket were is it lets go and find it says jon okay if you no what you are doing lets go there it is lets get it wow go in side 5,4,3,2,1 go that was good maybe for you jon

4. Key (spacecraft)
Tell me more about the spacecraft!

Ideas
You could tell me what is happening in different places inside the craft. You could tell me about the effects of weightlessness and how everyone and everything is floating around...or something else?
Sentence help
Use alliteration to describe the spacecraft like this: the silver, streamlined spacecraft soared. Try a simile or a metaphor: the rocket screeched into space like a firework on bonfire night.

Word help
Do you need to know the names of the various gadgets on board? control panels, monitors, digital read out, radar screens, dials, instruments, space telescope.

Check
Did you manage to use lots of good space words here? Did you use alliteration, a simile or a metaphor?

Response
the rocket has lots of light lots of buttons to two seets with seetbelts a screen and all of the plantes a round the screen i could see earth we where home before we could speek.

5. Action
You could bring in some strange or unusual characters now. Write what happens when your main characters meet them!

Ideas
How about an alien? Or a robot? Or a strange creature from planet Neeza? Does it arrive in a flying saucer? Or pop out from nowhere?

Sentence help
Use adjectives to describe this character - how it looks and how it moves. Use a simile or metaphor to compare the way it looks or moves with something else.

Word help
Use words like: There they were face to face with a hairy, orange alien. Angry, it jumped up and down, its antenna blazing red with rage.

Check
This should be an entertaining section! Does enough happen?

Response
ons dad came home from work and he said i am home jon i have some thing to tell you mum is going away with her work soon and we can do something together when when said jon soon what do you want for tea dont no mum the phone you get it okay hello who is it yum yum what said jon mum what is on the phone nobody put it down BRING BRING whos there said mum iiiits an aline mum ilits an aline mum dropt the phone aaaaaah she said.

6. Complication
Try to make something unexpected, unusual or strange happen in your story now.

Ideas
Objects could start moving by themselves, vanish or break. A loud noise could be heard. A strange spacecraft could suddenly appear. Who or what could get out?

Sentence help
Write what the characters do, say and think about the strange happening. Get your characters to ask each other questions like: "What was that? Did you see it too?"

Word help
Try using these words to start a sentence: Suddenly ... All at once ... Next ... After that ... Meanwhile ... Quickly...

Check
Did you make something really strange happen? Did you build up slowly to this, or did it happen suddenly?
Response
I bet I know what happened it must of got in the rocket before we got in. Next day time for school Jon oh muttered Jon KNOCK KNOCK get that mum okay who are you what do you want from us YUM YUM mmm mum screamed Jon.

7. Last
This is the end of your story. Explain what happens as a result of the adventure.

Ideas
Bring things back to how they were at the start of your story.

Sentence help
Can you find an unusual way to end? Perhaps someone could look into space thinking out loud perhaps asking a question.

Word help
How about ending with a simile or metaphor to describe the last detail... Looking up, the distant planets winked like they were sending a morse code message.

Check
Have you explained everything that needed to happen before you ended your story?

Response
Me and mum screamed whatever it was it ran away that night we slept in the living room dad got back from work he shot in the door aaaaah mum shouted it's only me dear Jon me and your mum have got some think to tell you. You are having a sister wow said Jon when when soon that's moving under the covers now.

2nd draft - Editing

Section 1
Editing prompts
You have forgotten the [.] at the end of this paragraph.

Check the long sentence that begins [this is a good ]; It may need breaking into shorter sentences with full stops.

You have used the word [ said ], try a better word like: suggested, whispered, joked, promised, interrupted, muttered or yelled.

You have used the word [ went ], try a better word or words.

You have used the word [ got ], try a better word or words.

You may need a comma before the word [ but ].

Response
This is a good computer game Jon time for bed Jon interrupted mum.² Next day I had the funniest dream listen we where in a rocket we went to mars I climbed out and you lost me you went looking all over mars,³ but you still could not find me.⁴

Section 2
Editing prompts
You have forgotten the [.] at the end of this paragraph.

Check the sentence beginning [it was really s]. It may need commas.
Response

it was really scary i wish you were there i seen lots of alines, they let me have a tea party with them it was fun i seen luminous lights. You were in a rocket and you came to me stars glistened like bright yellow lights.  

Section 3
Editing prompts
You have forgotten the [.] at the end of this paragraph.

Check the long sentence that begins [I will go first]. It may need breaking into shorter sentences with full stops.

You have used the word [ get ], try a better word or words.

Response

I will go first suggested jon im not scared i am wissperd mum. let go back to the rocket were is it lets go and find it says jon okay if you no what you are doing lets go there it is lets get it wow go in side 5,4,3,2, i go that was good maybe for you jon.  

Section 4
(No prompts)

the rocket has lots of light lots of buttons to two seets with seetbelts a screen and all of the plants a round the screen i could see earth we where home before we could speek.

Section 5
Editing prompts
Check the long sentence that begins [ons dad came ho]. It may need breaking into shorter sentences with full stops.

Try not to use the word [and] more than once in a sentence. You could replace one [and] with a comma, or a full stop + another word that fits.

Check the sentence beginning [BRING BRING who]. It may need commas.

You have used the word [ said ], try a better word like: suggested, whispered, joked, promised, interrupted, muttered or yelled.

You have used the word [ get ], try a better word or words.

You have used the word [ going ], try a better word or words.

You have used the word [ thing ], try a better word to describe what the thing really is.

Response

ons dad came home from work and he said i am home ion i have some thing to tell you mum is going away with her work soon. we can do something together when when said jon, soon what do you want for tea dont no mum the phone you get it okay who is it yum yum what said jon mum what is on the phone nobody put it down. BRING BRING whos there whispered mum liits an aline mum dropt the phone aaaaaah she yelled.

Section 6
Editing prompts
Check the sentence beginning [I bet i know wh]. It may need commas.

You have used the word [ got ], try a better word or words.

You have used the word [ get ], try a better word or words.

Appendix B.8
Response
I bet I know what happened, it must of climbed in the rocket before we got in. Next day time for school Jon oh muttered Jon KNOCK KNOCK get that mum okay who are you what do you want from us YUM YUM. mmm mum screamed Jon.

Section 7
Editing prompts
Check the long sentence that begins [me and mum scream]. It may need breaking into shorter sentences with full stops.

Try not to use the word [and] more than once in a sentence. You could replace one [and] with a comma, or a full stop + another word that fits.

Check the sentence beginning [you are having]. It may need commas.

You have used the word [ said], try a better word like: suggested, whispered, joked, promised, interrupted, muttered or yelled.

You have used the word [ got], try a better word or words.

You have used the word [ ran], try a better word like: dashed, rushed, marched, strode or skipped.

Response
me and mum screamed what ever it was it rushed away that night we slept in the living room. Dad came back from work he shot in the door aaaaah mum shouted it's only me dear Jon me and your mum have got some think to tell you. you are having a sister wow whispered Jon when when soon that's moving under the covers now.

Final Draft
Aliens

This is a good computer game Jon time for bed Jon interrupted mum. By next day I had the funniest dream listen we where in a rocket we went to mars I climbed out and you lost me you went looking all over mars, but you still could not find me.

It was really scary I wish you were there I seen lots of aliens, they let me have a tea party with them it was fun I seen luminous lights. You were in a rocket and you came to me stars glistened like bright yellow lights.

I will go first suggested Jon I'm not scared I am whispered mum. Let go back to the rocket were is it lets go and find it says Jon okay if you no what you are doing lets go there it is lets get it wow go in side 5,4,3,2,1 go that was good maybe for you Jon.

The rocket has lots of light lots of buttons to. Two seats with seatbelts a screen and all of the planets a round the screen I could see earth we where home before we could speak.

ons dad came home from work and he said I am home Jon I have some thing to tell you mum is going away with her work soon. We can do something together when said Jon. Soon what do you want for tea dont no mum the phone you get it okay hello who is it yum yum what said Jon mum what is on the phone nobody put it down. BRING BRING who's there whispered mum ill its an alien mum dropped the phone aaaaaah she yelled.

I bet i know what happened, it must of climbed in the rocket before we got in. Next day time for school Jon oh muttered Jon KNOCK KNOCK get that mum okay who are you what do you want from us YUM YUM. mmm mum screamed Jon.

Me and mum screamed what ever it was it rushed away that night we slept in the living room. Dad came back from work he shot in the door aaaaah mum shouted its only me dear Jon me and your mum have got some think to tell you. you are having a sister wow whispered Jon when when soon that's moving under the covers now.
Appendix B.9
Tom's journey stories

Control story

Prompt
The King is very ill. Travellers must fetch a magic stone, which will make him better. Your story should mostly be about the dangers they meet as they journey back to the Palace with the stone. Write your story in the box below.

Response
The king was suffering from a type of aneserier a kind of sickness that could kill you so he had to get a magic stone to get his health back so he gathered his people and cried.
"People of Pamaliar I need someone to get this rummed magic stone * "we shall have tests! They start tomorrow in the afternoon so come if you want." So the very next day people from all over Pamaliar came to win the honour of getting the stone Scott smith informed his mum that there was tests and said
"I'm going to enter" and hurried out the door
"Be careful Scott," yelled his mum. The 1st test was an obstacle course. The 2nd test was a skill test and the 3rd test was a staying calm test, and Scott passed them all so he got the job of retrieving the stone. So he set off well he got to the stone all right but on the way back he fell down a pit, meanwhile things were going haywire at the Palace
"Were is he" said a guard
"We should sent a adult," said another
"But he did complete all the tests with no faults" said another. Meanwhile back at the cave Scott thought where am I anywhere better get off this unstable ground it dropped onto spikes but Scott's quick instincts warned him to jump off it when it fell. But it was no time to think about it because a boulder rolled after him and he ran till he was flat on a wall he rolled out of the way. The boulder crashed into the wall it made a hole in the wall and Scott ran out, back to the palace with the stone then he gave the king the magic stone so he could heal himself.

1st draft with HARRY

Welcome
The King is very ill. Travellers must fetch a special magic healing stone. Your story should be about the dangers they meet as they return with the stone. Make a list of ideas for this story in the box below.

Ideas
This should be a mysterious story where strange things sometimes happen. The stone will probably nearly get lost or stolen several times on the way. How? Will your characters be modern or from the past? Will they be young or old?

Sentence help
Write down any good phrases you can think of which you could use later like: The mission was far harder than they could ever have imagined.

Word help
explorers, rugged clothes, trailing cloaks, ventured, strode, lingered, plodded, ventured, trekked, dangerous, risky, challenge, quest, mission, strange.

Check
Come back to this or any other page to find ideas for what to write.
Response
Dark cave, magic stone, King Robert, cave-in, landslide, travelers.

1. Start
Set the scene. Describe the King's Palace. Perhaps the King is ill on a bed and the courtiers are discussing what should be done.

Ideas help
Does the King sneeze or cough? Have a fever? Pale and weak? Do the servants speak loudly or in hushed whispers afraid to disturb the King? Is there a doctor examining the King?

Sentence help
Use similes to describe the size and splendour of the palace - as enormous as... As shiny as... as smooth as... magnificent like... cluttered like....

Word help
Think of different adjectives to describe the palace like: vast windows, tiled ceiling, marble floor, sumptuous red velvet curtains, golden statues, magnificent candelabra,

Check
Does your description flow well. Did you use lots of adjectives and adverbs. How about a simile?

Response
"WHAT" cried the servant as he served breakfast.
"Hu" asked the cook "what happened."
"I think we'd all like to know that" said another servant.
"The king is ill! The king was ill and know one could deny it there he was sitting up in bed eyes just staring at the sparkling ruby mirror.
"And its supposed to be changing of the guard today" cried the servant.
"Calm down!" ordered the king "It will just have to wait now somebody must get that healing stone the servants ran to court the glittering gold palace and though tall high doors like ladders. The king looked though the vast open window swounded in jewls and fell to the ground with tierdness.

2. Character
I need to know more about the travellers who have been chosen to undertake the difficult task of getting the healing stone.

Ideas
Give them unusual names? Write about what the travellers say, think and do to show what they are like! How will they prove they are brave and courageous enough for the task? Do they have to pass tests?

Sentence help
Link descriptions together with words like: before, when, until, where, while, whilst, after, since. Like this; The crazy, explorer, jumped from one foot to another whilst...

Word help
Use words which show how someone feels like: suggested, interrupted, boasted, exaggerated, claimed. Were they looking serious or smiling, with a grin which stretched from ear to ear, or something else?

Check
Have you given the travellers interesting names? How did the travellers prove they had the courage to undertake the mission? Did they have to do well in some tests set by the King?

Response
"By order of king Robert somebody has to get the fabled healing stone" adressed the servant. The croud was astounded by the servant coming to court not the king, but then Frank the show off boasted
"leave it to me I am by far the best!"
"No no no we are going to have a tournament to get are champion's among the servant. So they had an obstacle course to see who was best they had the show off and the three friends cheeky, rosie and jacky so they all set off.

3. Setting
Tell me how the travellers prepare for the mission. Describe the first part of the journey. Where do they find the stone?

Ideas
What do the travellers wear? Do they take any special equipment to help them on their dangerous journey? Perhaps a map, a rope, a knife, food and water? What do they all think of the stone when they find it? Boring and dull until....

Sentence help
Build up to seeing the stone using two short sentences followed by a long. Like this: At last! There it was! The stone was lying on...in the middle of...next to....

Word help
gem, sparkled, shone, beautiful, gleamed, glistening, flashing, flickering, dazzling, glowing, quivering, as small as a...or as bright as...or it erupted like....

Check
Try to make the part where the healing stone is seen or touched for the first time really dramatic. Do lights flash and sparks fly? What sounds does it make?

Response
So the three friends packed a flask of water and plenty of food and a rope, a knife, coathangers (for sliding down the rope) and extra clothes and a bow with lots and lots and lots of arrows in three rucksacks and they set off. They soon found the dark cave they entered very carefully and when they got to the stone it wasn't there Frank had been there when they approached the pillar where the stone was there was an earthquake and they fell through the ground where they pocketed the fake stone and went off to find frank.

4. Action
The travellers may stumble across a town on their journey back to the Palace.

Ideas
Perhaps they buy food or equipment for the rest of their journey. Perhaps they stay the night at an inn.

Sentence help
Turning the corner...Further up the road...Across the street...Opposite...Outside...Beyond...When...With....

Word help
comfortable warm beds, welcomed, exhausted, thankful, crowded, busy, hustle and bustle, noisy, market day, blare of music, loud chatter, shouted, pushed and shoved

Check
Do you think you could improve your description of the town? Imagine you have a camera to take some pictures. Describe what's going on everywhere.

Response
They thought of climbing up the rope but when they got to the top there was a landslide and a cave-in so they jumped down he pit they folled a twisted tunnle and they saw daylight ahead of them but then they relised that they would have to cross a pit to get to it so they got out the rope and the slide across on the coathangers but two of them snapped so when they got across they went to the nearest town. Boy was it busy there was an hustle and bustle so they had to squeeze though the crould to get to the inn. They stayed the night and Cheeky woke them all up as a prank they were sad to get out of the comfy warm beds but after they had eaten a hearty breakfast they went out to get supplies seeing
as the inn didn't serve breakfast then they reasoned that the town always had blare of music on classic, jazz or about just anything in the crowded coubled streets. There was dazzling performances every hour and tons of chatter. Seeing as it was an cliffside town about everybody came there to get super drinks from the pub. They saw Frank chatting to what must be his friend so they came in and told Frank. "That is not the true that is just a mirror image" so Cheeky traded the tales for the true and frank said see you losers and he speed though the towns narrow streets into the next cave.

5. Key (town)
Not everyone turns out to be friendly and helpful in the town!

Ideas
The stone could get stolen by a pickpocket!

Sentence help
Close on their heels...scaling a wall...pinned to the ground...brushed up close...caught sight of.... pushing through the crowd,

Word help
hustle and bustle, chased, hot pursuit, cunning trick, thief, culprit, grabbed, snatched, zigzagging

Check
Make sure the travellers get away from the town safely with the precious stone!

Response
As they set off a man came speeding up to them and snatched the stone. "Stop thief" the children cried and soon there was an hot pursuit zigzagging though the town. Soon the culprit reasoned they were hot on his trail so he panicked and chaged straight into a lampost. He chased to the ground so the children raced up to him and grapped the stone and took the man to the police and ran to the next cave.

6. Complication
I have a feeling something will go very wrong in your story soon! But maybe things don't turn out to be quite as bad as they seemed at first.

Ideas
Perhaps something or someone could get lost or left behind or injured...Organise a search or rescue party! Or someone could land someone else into trouble by accident.

Sentence help
Build up the event with lots of sentences. Something could be glimpsed. Something could catch someone's eye. Someone could hear something important. Someone could move something and discover...

Word help
Everyone will be anxious and worried at first...then relieved, pleased, thankful or ecstatic when the lost person is found.

Check
Did things happen too quickly? Could you have described what happened and the scene a bit more.

Response
"Help" cried a voice. "Help!" there it was again. "HELP!!!" I thought I heared a voice Rosie told the others Jack gave Cheeky a sideways look the children stumbled forward and found Frank clinging on for dear life. Rosie told the others that if they worked together they would be able to rescue him. So Rosie held Jacks hand and Jacks other hand held a rock. Frank grasped Roises hand but because of the weight Jacks hand slipped off the rock! But Cheeky lep into action by grabbing Jacks hand and reiling them in like a fishman would with his catch!They didn't have to do that they could of just left Frank to die but they saved him they were all
relieved asselpel Frank so they got out the rope and the three friends slid across on coat hangers and
Frank monkeybared across.

7. Action
Tell me about the route the travellers take on their way back. Do they meet anyone on the way? Are
they friendly or not?

Ideas
Get the travellers to talk about adventures they have had in the past, as they walk along the track.
Maybe they meet a magician or a wizard. What do they say to each other?

Sentence help
Expand a short sentence like 'They walked down the path' into a long one like this 'They strode along
the winding sandy path'.

Word help
Link words: next, later, eventually, after, before, clearly, among, behind, obscured by, opposite, in
between. Words meaning walked: ambled, scrambled, strode, trekked, tramped, kicking up the
stones, energetically, slowly, wearily, panting, breathlessly.

Check
Did you use lots of dialogue here? Did the travellers tell each other funny stories about other
adventures they have had. Could you improve this part?

Response
As they travelled back to the place they talked about the adventures there'd been on when they came
across a little cottage they knocked on the door. It was clearly a magician who lived there because he
had robes on. He looked friendly but they approached carefully.
"I don't trust him" whispered Frank.
"I don't either" replied Jack in a whisper

8. Key (magician)
Tell me more about the magician!

Ideas
What is the magician like? Does the magician put them up for the night in his castle? What's the castle
like? Was he pleased to see them or not? Perhaps he is helpful? Perhaps he casts a spell?

Sentence help
Try one of these sentence starters: Strangely, Oddly enough, Almost certainly, At that moment, One
moment....next minute...Out of the blue...moved by itself...

Word help
tall, long black cloak trailing behind, enormous floppy cone shaped hat, dusty ancient looking book,
shelves laden with jars and potions

Check
Have you made the magician sound powerful and mysterious? Do unexpected things happen when
the magician is around.

Response
The magician was very tall. He had a trailing black cloak dropping down behind him and a pointed hat.
"Well well what do we have here" the magician muttered to himself and he asked.
"What are you doing here?" "Neither mind Your going back to the king amn't you.
"Yes we are" replied Cheeky "how did you know?"
"I just know" replied the magician "know come on I have a few things you might like." So they went
into the magician's cottage and he gave them a potion to drink when they were going on their way.
They ate and drank to their hearts content and then they rested untill the morning when they said
farewell and left.
9. Last
You've got to the last part of your story already! The travellers need to return safely and give the stone to the King!

Ideas
Is there a heroes welcome (a party?) for the travellers when they arrive back at the palace? How ill is the King? Will the stone work? How will it do this?

Sentence help
Your last sentence is the most important one! Perhaps you could end with describing what is happening right now as the story comes to a close.

Word help
ill, feverish, temperature, pain, anxious, fragile, weak, pale, collapsed, revived, recovered, happy, smiled, jubilant, danced, rewarded, congratulated

Check
Check your first paragraph. Does your last one fit in with what you wrote there?

Response
"Come on come on" cried the servant "aha there here. The children found that the potion had transported them straight to the palace where the king was just about to die when the servant shouted for joy.
"There here oh well done!" So they went directly to the king, they tried Franks stone (the fake one) it didn't work so they got worried but then they produced the real stone but it didn't work!
"Oh no!" shouted the servant in alarm but then the magician broke in and said tranquilly.
"Poor this potion on the real stone it will make it work."
"How do you know" asked Jack.
"I kown because I made them" replied the magician. So they poored the potion on and it worked so they threw a royle party and everybody was invited.

Section 1
Editing prompts
The word ["Hu"] needs an exclamation mark after it!
You may need a question mark at the end of the question beginning [What ].
You may need a question mark at the end of the question beginning ["What happened].

Response
"WHAT?" cried the servant as he served breakfast.
"Hu? asked the cook "what happened?".
"I think we'd all like to know that" said another servant.
"The king is ill! The king was ill and know one could deny it. There he was sitting up in bed eyes just starering at the sparkering ruby miror.
"And its suposed to be changeing of the gaurd today," cried the servant.
"Calm down! ordered the king "it will just have to wait now somebody must retrive that healing stone. The servants rushed to cort thew the glittering gold palce and though tall high doors like ladders. The king looked though the vast open window swounded in jewls and fell to the ground with tierdness.

Section 2
Editing prompts
Check the sentence beginning ["By order of k]. It may need commas.

Check the sentence beginning ["No no no we]. It may need commas.
Try not to use the word [and] more than once in a sentence. You could replace one [and] with a comma, or a full stop + another word that fits.

You have used the word ['get'], try a better word or words.

You have used the word ['going'], try a better word or words.

You may need a comma before the word ['then'].

You may need a comma before the word ['so'].

Response
"By order of king Robert, somebody has to search for the fabled healing stone," addressed the servant. The crowd was astounded by the servant coming to court not the king, but then Frank the show off boasted.
"leave it to me I am by far the best!"
"No no no, we are having a tournament to find the champion's, another servant. So they had an obstacle course to see who was best they had the show off, 'The three friends cheeky, rosie and Jacky, so they all set off.'

Section 3
Editing prompts
Check the long sentence that begins [So the three fr]. It may need breaking into shorter sentences with full stops.

Try not to use the word [and] more than once in a sentence. You could replace one [and] with a comma, or a full stop + another word that fits.

Check the long sentence that begins [They soon found]. It may need breaking into shorter sentences with full stops.

You have used the word ['went'], try a better word or words.

You have used the word ['got'], try a better word or words.

Response
So the three friends packed a flask of water, plenty of food, a rope, a knife, coat-hangers (for sliding down the rope), extra clothes and a bow with lots and lots of arrows in three rucksacks. Then they set off. They soon found the dark cave. They entered very carefully and when they arrived at the stone's pillar it wasn't there, Frank had beten them to it. When they aproached the pillar, where the stone was there was an earthquake. They fell thew the ground were they poched the fake stone and decied to find Frank.

Section 4
Editing prompts
Check the long sentence that begins [They thought of]. It may need breaking into shorter sentences with full stops.

Check the long sentence that begins [They stayed the]. It may need breaking into shorter sentences with full stops.

Check the sentence beginning [Seeing as it wa]. It may need commas.

Check the long sentence that begins ['That is not th]. It may need breaking into shorter sentences with full stops.

You often use the word ['so']. Do you really need it?

You often use the word ['but']. Do you really need it?
Response
They thought of climbing up the rope. When they climbed to the top there was an landslide and a cave-in, so they jumped down the pit. When they foiled a twisted tunnel, they spotted daylight ahead of them. Then they reread that they would have to cross a pit to reach it, so they pulled out the rope and they slide across on the coathangers. Two of them snapped. When they were finally across they dashed to the nearest town. Boy was it busy there was an hustle and bustle, they had to squeeze though the crowed to arrive at the inn. Choosing to stay the night, Cheeky woke them all up as a prank. Jack and Rosie were sad to leave the comfy warm beds, but after they had eaten a hearty breakfast they thought of buying supplies seeing as the inn didn't serve breakfast.

Then they reread that the town always had blare of music on classic, jazz or about just anything in the crowded cobble streets. There was dazzling performances every hour and tons of chatter. Seeing as it was an cliffside town, about everybody came there, to try superb drinks from the pub. Watching Frank chatting to what must be his friend they came in and told Frank, "That is not the true stone that is just a mirror image." Cheeky traded the fakes stone for the true one, then Frank yelled see you loosers and he speed though the towns narrow streets into the next cave.

Appendix B.9
Section 6
Editing prompts
Check the long sentence that begins [They didn't hav]. It may need breaking into shorter sentences with full stops.

Try not to use the word [and] more than once in a sentence. You could replace one [and] with a comma, or a full stop + another word that fits.

You often use the word [but]. Do you really need it?

You have used the word [ got ], try a better word or words.

You may need a comma before the word [so].

You may need a comma before the word [but].

Response
"Help" cried a voice.
"Help!" there it was again.
"HELP!!!" I thought I heard a voice Rosie told the others Jack gave Cheeky a sideways look the children stumbled forward and found Frank clinging on for dear life. Rosie told the others that if they worked together they would be able to rescue him. So Rosie held Jacks hand and Jacks other hand held a rock. Frank grabbed Rosies hand, but because of the weight Jacks hand slipped off the rock! Cheeky leapt into action by grabbing Jacks hand and reeling them in like a fisherman would with his catch! They didn't have to do that they could of just left Frank to die. They saved him they were all relieved aselope Frank. Then they yanked out the rope. The three friends slid across on coat hangers and Frank monkeybarred across.

Section 7
Editing prompts
You have forgotten the [.] at the end of this paragraph.

Check the sentence beginning [As they travell]. It may need commas.

You may need a comma before the word [but].

Response
As they travelled back to the place, they talked about the adventures they'd been on, when they came across a little cottage, they knocked on the door. It was clearly a magician who lived there because he had robes on. He looked friendly, but they approached carefully.
"I don't trust him" whispered Frank.
"I don't lither" replied Jack in a whisper.

Section 8
Editing prompts
You may need a comma after the word [Well ].

You may need a comma after the word [Yes ].

Check the sentence beginning ["
"I just know]. It may need commas.

Try not to use the word [and] more than once in a sentence. You could replace one [and] with a comma, or a full stop + another word that fits.

You have used the word [ said ], try a better word like: suggested, whispered, joked, promised, interrupted, muttered or yelled.

You have used the word [ went ], try a better word or words.
You have used the word [going], try a better word or words.

You may need a comma before the word [then].

**Response**

The magician was very tall. He had a trailing black cloak dropping down behind him and a pointed hat. "Well, well, well, what do we have here?" the magician muttered to himself and he asked.

"What are you doing here?" Neather mind Your returning to the king amn't you.

"Yes, we are" replied Cheeky "how did you know?"

"I just know," replied the magician, "now come on in. I have a few things you might like." So they popped into the magician's cottage and he gave them a potion to drink when they were going on there way. They ate and drank to there hearts content, then they rested until the morning when they bid farewell before they left.

**Section 9**

**Editing prompts**

Check the long sentence that begins ["So they went"]. It may need breaking into shorter sentences with full stops.

Try not to use the word [but] more than once in a sentence. You could replace one [but] with a comma, or a full stop + another word that fits.

You may need a comma after the word [Oh].

You often use the word [so]. Do you really need it?

You often use the word [then]. Try a different word like:

You often use the word [but]. Do you really need it?

You have used the word [said], try a better word like: suggested, whispered, joked, promised, interrupted, muttered or yelled.

You have used the word [went], try a better word or words.

You have used the word [got], try a better word or words.

You may need a comma before the word [then].

You may need a comma before the word [so].

You may need a comma before the word [but].

**Response**

"Come on come on" cried the servant "aha there here." The children found that the potion had transported them straight to the place where the king was just about to die when the servant shouted for joy.

"There here oh, well done!" So they went directly to the king, they tried Franks stone (the fake one). It didn't work they were worrid. Quickly they procod the real stone, but it didn't work! "Oh, no!" shouted the servant in alarm. As if he knew the magician broke in and suggested frantekly.

"Poor this potion on the real stone it will make it work." "How do you know?" asked Jack.

"I kown because I made them" replied the magician. So they poored the potion on, it worked. They thw a royle party and everybody was invited.
"WHAT?" cried the servant as he served breakfast.
"Het!" asked the cook "what happened?"
"I think we'd all like to know that" said another servant.
"The king is ill!" The king was ill and know one could deny it. There he was sitting up in bed eyes just
starering at the sparkling ruby mirror.
"And its supposed to be changing of the guard today," cried the servant.
"Calm down!" ordered the king "it will just have to wait now somebody must retrieve that healing stone.
The servants rushed to court threw the glittering gold palace and though tall high doors like ladders.
The King looked though the vast open window swounded in jewels and fell to the ground with

tiredness.

"By order of King Robert, somebody has to surch for the fabled healing stone," addressed the
servant. The crowd was astounded by the servant coming to court not the king, but then Frank the
show off beasted
"Leave it to me I am by far the best!"
"No no no, we are having a fordament to find are Champion's," anunst the servant. So they had an
obstacle corse to see who was best they had the show off, The three friends Cheeky, Rosie and
Jacky, so they all set off.

So the three friends packed a flask of water, plenty of food, a rope, a knife, coathangers (for sliding
down the rope), extra clothes and a bow with lots and lots and lots of arrows in three rucksacks. Then
they set off. They soon found the dark cave. They entered very carefully and when they arrived at the
stone's pillar it wasn't there, Frank had beaten them to it. When they approached the pillar, where the
stone was there was an earthquake. They fell threw the ground where they pocketed the fake stone
and decided to find Frank.

They thought of climbing up the rope. When they climbed to the top there was a landslide and a cave-
in, so they jumped down the pit. When they foiled a twisted tunnel, they spotted daylight ahead of
them. Then they reised that they would have to cross a pit to reach it, so they pulled out the rope and
they slid across on the coathangers. Two of them snapped. When they were finally across they
dashed to the nearest town. Boy was it busy there was
hot pursuit zig zagging through the town.

As they set off a man came speeding up to them and snatched the stone.
"Stop thief!" the children cried. Soon there was an hot pursuit zig zagging though the town. Soon the
culprit reised they were hot on his trail. He panicked and charged straight into a lamppost. He
chased to the ground. The children not missing there chance raced up to him, grapped the stone,
took the man to the police and dashed away before anything else happened to the next cave.

"Help," cried a voice.
"Help!" there it was again.
"HELP!!!" I thought I heard a voice Rosie told the others Jack gave Cheeky a sideways look the
children stumbled forward and found Frank clinging on for dear life. Rosie told the others that if they
worked together they would be able to rescue him. So Rosie held Jacks hand and Jacks other hand
held a rock. Frank grapped Roises hand, but because of the weight Jacks hand slipped off the rock!
Cheeky leapt into action by grabbing Jacks hand and reeling them in like a fisherman would with his
catch! They didn't have to do that they could have just left Frank to die. They saved him they were all
relieved asellpel! Frank. Then they yanked out the rope. The three friends slid across on coat hangers
and Frank monkybared across.
As they travelled back to the palace, they talked about the adventures they'd been on, when they came across a little cottage, they knocked on the door. It was clearly a magician who lived there because he had robes on. He looked friendly, but they approached carefully.

"I don't trust him" whispered Frank.
"I don't either" replied Jack in a whisper.

The magician was very tall. He had a trailing black cloak dropping down behind him and a pointed hat.

"Well, well, well, what do we have here" the magician muttered to himself and he asked.
"What are you doing here?" "Neither mind Your returning to the king aren't you.
"Yes, we are" replied Cheeky "how did you know?"
"I just know," replied the magician, "now come on in, I have a few things you might like." So they popped into the magician's cottage and he gave them a potion to drink when they were going on their way. They ate and drank to their hearts content, then they rested until the morning when they bid farewell before they left.

"Come on come on" cried the servant "aha there here." The children found that the potion had transported them straight to the palace where the king was just about to die when the servant shouted for joy.
"They're here oh, well done!" So they went directly to the king, they tried Franks stone (the fake one). It didn't work they were worried. Quickly they produced the real stone, but it didn't work!
"Oh, no!" shouted the servant in alarm. As if he knew the magician broke in and suggested ironically.
"Poor this potion on the real stone it will make it work."
"How do you know?" asked Jack.
"I known because I made them" replied the magician. So they poured the potion on, it worked. They threw a royal party and everybody was invited.

Appendix B.9
Pre-test story

The children that lived on the top of the hill

There were two children that live on a hill. They are always bored because they live away from the town. The next day their mum was watching the news she forgot to tell Billy and Mary that a rocket is going to take them to space. The next day she told them that they were going to space. They were thrilled that there were going up. That night the rocket landed at the station. They were there in their kit that got order for them. Now they were off they were on the space ship as quickly as there legs could run. They were in the ship "Billy we are in the wrong place" we are not.... A few minutes later "Billy Billy wake up " were am I " we are in a death trap " in space " yes". The next thing you know is that there back at home in bed it was all a dream.

HARRY assisted story

Fluffy & Jane

Tonight is a beautiful night to be looking out of the window. Not for Jane she is playing with her toy rocket. Jane has a huge imagination for a five-year-old girl. Because she watches her space movie about three times a day, she always wants to fly into space and play with the stars. The bit she hates about space is aliens. She likes it when they show the deep inky galaxy, and the bit where the stars come dazzling out of the darkness.

Today her mum and dad have taken her out to the space station. Jane loves it there. After they bought some cotton candy, Jane ran to this funny looking thing. It was a UFO Jane hasn't heard of a UFO. She went inside the UFO "what's this ". Jane looked at the object and stared at it very carefully. It said on the object that it takes you into space. So she tried it out. She pressed the button and she was flying out into the unknown galaxy. It took her two weeks to fly to this planet. Space is as quiet as a mouse, it gleams like a shiny snake.

Jane is having a good time, but she misses her mum and her dad. She was having lunch when she heard a noise behind the craters. Coming out of the crater came a big, angry red headed ball of fluff she was a bit surprised when she looked at it, it wasn't scary at all. She was a bit surprised because aliens are meant to be scary not look like a fluffy bunny. "AAAAHH! What are you?"

"Eh I am a human being and why are you afraid of me".

"Because no one has been here before, I mean look at you at your monster eating your brain".

Everything was going well, but something that they didn't no about was happening. Fluffy's Dad was the king and he was massive he always has his favourite waiter with him Goober.

"Why does my son hang out with a human BEING?" shouted king fluff and everything fell of the table. Back outside were Fluffy and Jane eating biscuits and cheese crackers.

"So where are your Mum and Dad" whispered Fluffy very quietly.

"Back at planet earth that is my home,"

"How did you get here then?"

"I used this gadget its in my pocket somewhere let me just get it oh no its not THERE" shouted Jane.

"But my Dad has one" screamed Fluffy

"Come on then lets go," shouted Jane. They looked round the corner and they found the spaceship. The spaceship had a wonky steering wheel, it was the only one that looked good so they jumped into the UFO. It was a shiny and sparkling spaceship.

"This spaceship is called Pluto"

"It's a beautiful name"

"Thank you well lets go," said Fluffy. So they buckled their self in and of they went. "I am getting tired"

"Well you can't go to sleep yet little girl"

"Dad" screamed Fluffy what are you doing here. Fluffy's Dad's army of robots surrounded them.

"Please dad I am trying to help my friend back to earth"
"I will not listen, I will not let you hang out with her she is A HUMAN BEING".

"But dad"

"No buts I am going to kill your friend so you will never see her again. "Nooool" and the spaceship was turning upside down around and around until they shot off through the deep galaxy they were near earth they were zooming at full speed.

"Ahhhh! Watch out for that house" BANG they crashed into the police station. "Where's Fluffy "

"I am here I have turned into a human,"

"But how?"

"When I am on planet earth I turn in to a boy".

"YEH but we have to keep this a secret"

"Got it " said Fluffy. So they shook hands and they will never talk about this again.

THE END!

Post test story

Treasure island

The new inn is where Captain Bones lives and his friends Rolf, Angel Marie is a dog, and his best Friend Master Hawkins. They always want to go on an adventure on the sea. Captain Bones is a grown up and Hawkins is 11 and Rolf is 11 and Angel Marie is 16, but he's still a dog. They have a waiter that is really strict Maid Marie she really tells them what to do. Captain Bones always wants his rum. Every night they have a feast and Captain Bones tells a story about Captain Flint because Captain Bones was Flint's first mate on the ship. "Bye everyone we are having roast Duck tomorrow no offence madam no offence"

" So me lad's what you doing today"

" I don't know"

"well I hope it's something quiet because my old self is going to bed"

"ok Captain Bones night night"

BANG the door slammed that was it nearly broken.

"I wish I could be a Captain of a ship like Captain Bones"

"I wish I could be in a ship and sail out to sea"

"wait what's this I wonder what it is"

" don't no what is if I think it is a tall about something"

"no it couldn't be it's a story to scare people"

"no it's a treasure map."

The next day they was a bundle of pirate's sitting on the end of the boat they was a funny looking pirate with one leg so they went over to see what they were doing. They were a lot's of pirate's around here so me hearty's you must be the cabin boy's"

"yes sir we are it would be better if you knew who we are"

"ok but you won't like this you are Rolf you are Angel Marie and you are Hawkins."

The next day they were on the island and looking for the treasure the only thing is that they were no sign of Long John silver the one legged man." I wish I had a diamond"

"I wish I could have a pearl necklace"

"I could get Angel Marie a golden collar"

"YEH". They all had they hopes up for finding the treasure because they had loads of gold and silver and bronze because Captain Flint buried the treasure, he was very rich. "Wait a minute that look's like a spot look it said were the dead men hang high we are here" shouted Hawkins. So they went into the cave Long John silver lead the way.

"there's something strange about Long John "whispered Hawkins

"why he seems fine to me" said Rolf

"woof woof!" barked Angel Marie.

"HA HA HA HA! laughed Hawkins

"don't be silly Marie you can't be his best friend you are a dog"

"come one let's go in the cave"," Ah ah me heartie's we will kill you or you will hand over the treasure "

"we don't have any treasure"

"I think we should kill him AAAAAAh" shouted Long John.
"Ok I will tell you Rolf" said Hawkins.

"Thank you Hawkins well it is were that hut is really right over there"
"COME ON"
"AAAAAHHHH YEHH!" So Rolf told them that the treasure was in the hut so they went over to the hut there was nothing there.
"Rolf now we don't get to find the treasure"
"yes we do because I have already got the treasure it's in the jolly boat come on." "yes we have the treasure let's go before they find us" so they got in the jolly boat and sailed back to the island. They were very tired when they got back. "Mr Bones we have the treasure"
"what treasure?"
"the treasure of captain flint." We will be rich YEHH! let's have a party. So they had a party and they never mentioned treasure again.
Aye aye captain, that was the sound of ten lazy people or crew. Starting a battle there was the hurry pig and the scull. Where is the sword you clumsy person we need armor, no you don’t we need cannonballs oh yeah and fire the scull wasn’t there. They were meeting at the clumsy island at nine a clock, the scull was late as normal about two hours late. The fight started the scull didn’t now left or right, the hurry pigs had forgot the cannonballs both of them were in a mess. The sculls fired it was miles out then the hurry pigs got swords and threw them back both of them were clumsy. But then the heads came there where big they where strong aaahhhh. They screamed I love you there screamed again and again and again it very hurt your ears badly said granny May to me. She loved telling stories and I loved listening to them well me and my brother Tom.

Yo ho ho and a bottle of rum that was the crew singing a song in the middle of the sea. The captain was called Calvin there was silly Steve and unhelpful Sandy. They loved singing they sang two times a day, they were all silly, stupid, clumsy, untidy, and still had baby toys. Sandy had a parrot called Handy, because when they were in battle he always suggested if they were strong or weak.

They set out to sea, shiver me timbers what’s coming, what’s coming it’s the custards aaaaaahhhhhhh, it’s the super super boat. Diving site I need a diving site screamed Sandy. She pulled it on and dived into the water, and pulled the plug of the super super boat. They sank into the water. Flounder flatfish face, look look there’s a island. They rowed and rowed in till they could not row anymore.

Sandy I want more food there is barely none, yelled Steve. Well go and buy some we haven’t got any left. Why do we have to work anymore it’s to hard Steve groaned. It was getting down, it was getting black around the ship there’s a storm coming. It got rough the winds were Wright up, it was very dizzy Sandy was sick. It bobbed down a bit, but afterwards it bobbed up again. We are never going to get though this, Steve fell over the side Calvin pulled him over. That was close thank you captain I am going sleep in the morning every think was ok.

There were nearly at the island that they saw last night it was massive. They rowed at that moment Sandy spotted a shark. She screamed what’s the matter shouted Calvin, he had really had enough its its a shark. Where where Steve screamed in excitement no its not its a dolphin, get the camera get the camera they took the picture the dolphin. It got scared and swam the other way. Arr they cape on rowing they came to the island. It was big it was like America and Spain put together. Sandy was shocked in excitement Steve was the first on the island Calvin was second, and Sandy was still in the boat she was in there for about two hours. Then she came out on the boat there was only one house on the island. There was only monkeys on the island that was the only animal. They went to the house first there was an old man in there he was very friendly that they let them stay there for the night. His name was Thomas he had brown hair. When we were having dinner. he whispered that he’s great granddad lived near a long time ago.

Granddad Thomas left some treasure and I, yes yes we will help butted in Steve. Well thank you very much we will start tomorrow. morning. We will start going round the edge see you in the morning whispered Thomas, they all went bed. Steve was dreaming of the treasure, Sandy and Calvin was just sleeping normal. The morning came Steve was the first one up they went digging in the hot boiling sun. That day they did not any think, but they dug a long circle round the edge of the island. The next day it was raining they did not find anything. But, the next day they did Calvin the captain found it they shard it out. Steve was so excited they said good buy and thank you to each other. Sandy Steve Captain Calvin rowed the old boat back home in the sunset, with their treasure.
Post test story

R.F.T.M.

Nobody could make it to day but here is a picture of Robert, he has brown hair and blue eyes, Thomas is Roberts twin brothers so they look the same there's Fred hanbert has, blond hair with blue eyes and last but not least Mollie martin, who has brown eyes and brown hair. We have not told anybody wet we are going to walk on mars the rocket is called R.F.T.M, meaning rocket flying to mars thank you for listening to me good bye.

Lets watch GMTV look there's Mollie. Mollie's dad screamed listen well how do you fell going to space tomorrow well mars you first Thomas, well its scary but I haven't been nervous. Mollie what about you well I have been fine that's my girl said Mollie's dad. Next up caption Robert not scared how about you Fred, well I didn't now till a moment ago it was scary. Well thank you for your time we will see you tomorrow you can see R.F.T.M flying goodbye for now.

1.2.3 FIRE, whhhhhococo that was scary said Mollie look there's Earth the moon screamed Robert you have already seen it. I lied to be caption I think somebody else should be caption laughed Fred I am not your best friend anymore sorry sorry doesn't work. Mollie you be caption ammmm ok said Mollie.

Ten years later.

Robert wasn't there no more Mollie was still the caption there where nearly at Mars there will be there in another 2 years.

Two years later.

They where at Mars (the red plant), the first person on Mars is Mollie it hat the news.

Appendix B.11
Appendix B.12

Charlotte's stories

Pre-Iesl

Tom and Tod

One day there was a boy called Tom. And he was at home. Tom was playing in a box. He sat in the box and said, "Mum, can I have something to eat?" So, Mum gave him his lunch. Tom got out the box and got his wellies. Tom put on a hat and got in the box. He said, "I'm a space man!" Then the box started to move and up the chimney. Up and up he went and suddenly, Tom was on the moon. Tom got out of the box and started to eat a piece of cake. When Tom had eaten his cake, he saw an owl. The owl said, "Hello! My name is Tod." Tom gave Tod something to eat. He asked, "Can you help me get home?" Tod said, "Well, say it again." So, they got in the box. Tom said, "I'm a space man." The box started to go down and down and down the chimney. Where have you been?" Mum said, "You have gone up to space. Don't be silly in the bath said Mum. So, Tom and Tod got in the bath. When they were clean, Tom said, "Could we keep him?" Mum said, "Ok." And they lived happily ever after.

HARRY assisted story

An adventure in space

At the space centre, there is an enormous huge space ship. One day, Madelyn went to the space centre. Madelyn's mum told Madelyn to go outside. Madelyn could hear a vibrating noise. She dashed until she came to the spaceship. Madelyn ran in. Madelyn spotted a girl crying. Madelyn asked, "What's your name?" The girl said, "My name is Kelly." Madelyn and Kelly sat down. Suddenly, the spaceship took off! The space ship went zooming. Pop! The spaceship bumped in a hole in sweet land...

In sweet land there are sweets everywhere. There are men sweets to tell you where to go! Bright stars glistened like the morning sun at night. Madelyn leaped out the space ship and ate a flower. *Good* joked Madelyn. "Is it ok?" whispered Kelly. "Yes" whispered Madelyn. Suddenly, a sweet man popped up! "Ahhhh" shouted the girls. "Come with me! I will take you to the play area. "No! We're lost," grinned Kelly.

Madelyn and Kelly explored. Kelly jogged, but Madelyn skipped. They reached the other side of the planet. *This looks different," muttered Madelyn. "Yes" whispered Kelly. "Welcome to the planet evil!" laughed a voice. "Don't go," grinned the voice. The girls ran! The gates closed. Suddenly, a gigantic black hand grabbed them and trapped them in a small cage.

"Help help!"

Meanwhile, at the space centre, Madelyn's mum and Kelly's mum were looking for them. "Kelly, Madelyn! Are you there?" shouted the mums. "It is not funny any more!" The mums rushed to tell the helpers.

Back at the planet evil a bomb exploded and it scared the girls. A vast monster appeared. *You are its dinner*! Kelly grabbed a bomb and let it go.

*What are you doing?* shouted Madelyn. "It's the only way to be free!*" The bomb exploded and broke the bars. "Maybe it will kill the monster!" whispered Madelyn. Madelyn threw a bomb at the monster! "You killed the monster," yelled Kelly in a happy voice. "How dare you!" interrupted the voice. Madelyn and Kelly strode all the way to sweet land and jumped in the space ship just in time. 321 the spaceship took off. When they returned to the space centre, they skipped to their mums. "Mum I mist you," said the girls to their mums. When Madelyn went to Kelly's house, they looked in to the sky they could still hear, the monster!
Once upon a time in a dark gloomy wood live a family of four. There were two children. One was called Ben the other named Kate. One day they went in to the woods. Ben and Kate went to a tree "We can build a tree house" whispered Kate. "Let's get started" said Ben.

Kate and Ben found some wood.

"Mum can I have some tools?" begged Kate. "Why?" said mum.
"Because me and Ben are building a tree house," cried Kate.
"Okay and take a backpack for you and Ben, it got some things you mite want, when Dad comes home I will tell him to come over" said mum.

Kate ran back. "Here you go," panted Kate. "Why do I need this" joked Ben! "it might have some thing you need" muttered Kate. "Like what?" said Ben rudely. "It got food in and toys those sort of things ok shouted Kate. "Yes"said Ben. "let get finished" laughed Kate. "Can you hear that?" whispered Ben and Kate saw a big shadow. "Ahhhhhh" screamed the children. "It's only me" said dad! Dad helped them finished the tree house. "Finished" they all said "Go to bed now" said dad "Dad can we sleep in the tree house" Begged the children. "No but maybe tomorrow" yawned dad. "Thank you for helping us Dad" said Kate tiredly.

The next morning Kate and Ben took there breakfast to the tree house. They stayed in the tree house all day. "LOOK" shouted Ben "Zombies" cried Kate the zombie's starts to clime the tree house!

The king zombie shouted "tidy them up" 'in your backpack there a knife" whispered Ben. Kate got the knife and cut the ropes!
"Get the food out" Ben got the food out and throws it at the zombies The zombies ran away and never came back...
Pre-test story

"Hello, I am going to tell you about the trip of my life in space!" Well it started when this crazy inventor thought up this idea about going into space which people had only dreamed about before. But when he asked for funding from the government they laughed because they thought he was talking nonsense! When he came back into town I had just won the lottery YIPPEE! Because I was interested in his idea I decided to fund him, he said it would be worth it. When he had finished his so called rocket he asked me to come and test it which I agreed to do because it looked like fun blasting off into the stars! He put me through tests to see how I would cope in space, which I passed. The day finally came when I would blast off into the stars! I was so excited because no one had ever done it before and it had been my life long dream. When I got into space it was amazing how weightless it was. "I can fly!" I screamed at the top of my voice to the thin cold air there was so much to see all the planets the stars like burning balls of flame.

"This is ground control do you read me?" crackled the transmitter.
"I read you loud and clear!" I screamed back down.
"The space search has been a success you can come back down again now!
I didn't want to go back down again but there was not enough food on the rocket to do that. So I came back down to Earth. But on the way down the Ozone layer almost broke the spaceship sending me to my death! But the spaceship managed to reach the Earth before breaking into smithereens I was famous people said but I was just glad I had still got my life!

HARRY assisted story

Space battle

BANG! The rocket that Professor Crazy had been trying to make, for centuries it felt like, exploded. He had been trying to make a rocket. Other people had stolen his idea and made one first, but with no one to test it. He had found Ricky and Smashly to test his, but struggled to build the rocket. The rocket gleamed in the sun and it was a magnificent sight with its polished red tail fins. It felt like the rocket was alive. Towering over you like a giant. It looked as tall as a skyscraper except that's what it was beginning to look like. There were still broken patches here and there, as you looked up to the towering peak. The carbonated steel glimmered in the sunlight, but it wasn't very strong!

"3,2,1 we have lift off!" Shouted the loudspeaker, as we blasted off into the distant stars. Everyone was at the launch pad, as this was one of the first ever rockets to actually blast off.
"Wicked!" Shouted Smashly, as the weightlessness began to make us fly about like when you float in a swimming pool.
"What was that?" Ricky asked as something crashed into the hull. The stars glistened in the night sky like Christmas tree lights and the planets hung silently, as if they were hung up on strings.

Looking down, the pair of them spotted a complete alien city with everything to take control of the galaxy. Suddenly, an alien U.F.O came flying towards them and before Smashly and Ricky could react the U.F.O landed on top of them with difficulty then boarded them!
"Hello I am Cozo the friendly blue alien from Pluto, who are you?"
"I'm Ricky and this is my friend Smashly from Earth."
After a long conversation Cozo finally left and glided down to Pluto.
After that incident the two friends flew down to Pluto. After stepping down they were surrounded by the aliens. Before the aliens had time to fire their space guns, Ricky and Smashly took off back down to Earth with lasers following them as they went!
But the friends didn't give up! They found some space guns and landed on the other side of Pluto. As soon as they landed they started firing at the guards on the temple, which held the energy crystal, which Earth was in need of! After they had broken in they started going down the corridor. They were killing aliens as they went! When they broke the crystal out of the enclosure. They sprinted past the savage dog like creatures with massive fangs. Then jumped into their rocket after that, they took off

Appendix B.13
with the crystal whilst angry alien shouts, curses with some laser beam shots! Little did they know they had started a planet war!

"What the! Why is all the food disappearing like this?" Asked Ricky.
"Found the culprit!" Shouted Smashly, as he looked and found" Cozo?" 
"What are you doing here!?" shouted Ricky at Cozo.
"I came to tell you that you have started a planet war so now Pluto is going to hate Earth!" Answered Cozo.

Bang they herd an alien mega cannon as it fired towards the rocket!
"Surrender and hand Cozo over now or die!" Demanded the aliens.

"Lets move on out of here!" Shouted Ricky as the bullet hit the side of the rocket.
"We are in hyper speed now!" Shouted Samshly as they zoomed straight past the aliens!

After entering Earths atmosphere the rocket started to break up!
"Lock out!" Screamed Ricky as they crashed, the nozzle of the rocket first, into professor Crazy's Lab.

They thought they were safe, but they weren't...

"Hello Professor Crazy!" Ricky said in a welcoming way "we've found an alien, a crystal and started a war!" Before they could warn Earth, the aliens attacked with a...

Bang! Crash! Kaboom! The alien guns went firing at the puny earthlings.
"Charge!" Screamed Smashley, as he attempted to beat the aliens in combat, single-handed!
"Attack!" Ordered the alien commander!

Professor Crazy phoned the local army base for reinforcements!
After what seemed like ages, the alien commander commanded in a panicked voice.
"Retreat the humans are better fighters than we thought they were going to thrash us!" even though the remaining alien army of ten aliens that were left out of three hundred which they had started with, retreated. The humans had survived but with lots of casualties and some of the best commanders were dead or dieing on the battlefield! Really it was like a draw, neither side had won, even though the humans managed to win the battle!

The aliens retreated right back to their spaceship and took off with humans following them chasing them back to were they came from killing more on the way.
"This is only the beginning of what is to happen!" Screamed Smashly after them.
Professor Crazy had always wondered if there was intelligent life somewhere out there deep in the solar system, but after the battle he knew that there is another race out there. This was only the beginning of the history of space travel. Professor Crazy, Smashly and Ricky stared into the moonlit sky where stars twinkle like candles on a cake. Each of them was thinking, "I wonder if there is any more life out there?"
All of them wanted to be the first to see it.

Post test

**The Rivals**

It all started when Captain Cuttle Fish, Fish for short, started a pirate band. His crew were Terrible Tim, Scary Swashbuckling Sam, Ferocious Fred and finally Mean Moody Michael. Fish had his eyes on the treasure on the well-known Treasure Island. Fish used to be part of the evil pirate gang called The Scurvy Dogs and the leader was Captain sea dog. Fish didn't like Dog and vice versa, so both of them had raised a terrifying crew to kill each other with. Battle was imminent and rivalry was as bad as it could get!

"Aye I can't find my treasure map of Treasure Island. I knows it be round 'ere somewhere!" Cried Fish. "Aye there is me map and treasure island!" Little did Fish know that Captain Sea Dog was following him and he wanted to get his hands on the treasure first! Fish and Dog had been rivals in school but as pirates it had grown a whole lot worse!

Dog boarded Fish's boat with him and his terrifying crew shouting terrible cries of, "Get the scurvy dog who has betrayed us!"

It was a long and bloody fight in which hardly either crew got the upper hand. In the end Fish managed to claim a victory against Dog. Dog and his gang ran back to their ship pursued by some of Fish's men!
After rowing out in the wooden dinghy Fish and his crew landed on the island and spread out to look for the sign of treasure which is an x. Then after what seemed like ages there was a cry of, "Captain I’ve found the treasure!" From Sam. When all of the pirates had gathered round the x Fish commanded, "Well start digging then!"
And on that order the pirates started digging. Then after what seemed like ages the pirates uncovered a rusty old treasure chest.

When the pirates had prised the lock off the chest they opened the chest and found, nothing! They found nothing because Dog had stolen the treasure first and was ready and waiting in the bushes to ambush Fish with the rest of his crew.
"Charge!" Shouted Dog as his crew charged out to meet Fish in close combat. Since his crew had just lost a battle they were eager to prove themselves in a fight.

"Not again!" Shouted Dog, as his men dropped the treasure and fled from the battle, got killed or abandoned Dog’s cause and joined Fish, since he seemed to be the winning side! Dog finally got hacked down by Fish at that battle and lost his life then his treasure because he wouldn’t give up and join forces with Fish.

After Fish then his crew came home they each bought an expensive house with the diamonds and doubloons that they’d stolen. Then they lived forever more untroubled, until the navy found out there old secret of their riches!
Appendix B.14

Andrew's stories

Pre-test story

The deadly dragon

One day blood eye was sailing in the ocean with his scary pirates but one of the sailors had to walk the plank he was gone in a flash the lightning struck Blackbeard he was a old and crinkled and they pushed him of the ship they carried on sailing they met a three headed dragon it was fire breathing and has a vicious tail smack it called in the family it worked all the family was their, and they were gonnas the ship was pure gold the ship started to shake. The sailors were terrified they ran into the cooks room he said ok is this a bit over the top they all said at won time there is a three headed dragon out their, we will die if we don't do some think the ship his over turning help! Everyone get of the ship they all leaped to a rock all the gold his gone we will get fired if the captain finds out about this we will die because we no food. I think we are saved look a island it looks like there is some gold, food, planks and weapons oh no not him again who's that, the dragon who do you think help, help swim for your life I can't swim said patch-eye you will have to commit suicide no way well you should of learnt to swim when you had the chance, you shut up long nose.

HARRY assisted story

The Meglowdon

Spencer and mark are royal commandos, they are taking a sub out to sea, but they have to discover a shark. The breed is Meglowdon, it is the strongest shark ever known the shark is two feet high it has a astronomical. Meglowdon jaws are so strong, that it could crush a meteor. The sub has anti locking missiles.

People think that this type of shark is extinct, but all except Spencer he is a diving expert. He knows all about sharks because he viewed a meglowdon in the sea yesterday. The anti locking missiles are so weak that it could not destroy the meglowdons heart. A meg is so strong that it could not be destroyed all of a sudden A meg! Came out of no were, it is the most dangerous shark in the world. Spencer is in the mini sub fire move spens a rocket is moving towards you copy that. Everyone take cover the shark is coming towards us spens out of there, the Meg is coming fire the rocket missed.

The pirates are under attack. The enemy was next to the dastardly bunch. Canons were fired sword stabbing were destroying peoples life's. Right now people were leaping over board the pirate ship mini guns were fired. Flame throwers spat out flames, people were badly burnt. People were rolling around to stop the flames from killing other gang people.

One of the bloodthirsty gang slashed the other pirate's trousers down and they started to fight. Every one was laughing at the pirate with his trousers down. Die you ugly monster that's are gold, pick up the bows. Commander Rob fires the missiles in the anti super sub fire! Oh no, the engines were destroyed in the attack of the anti super sub. Suddenly, a nuclear sub clears the way and destroyed the enemy oil tanker.

Alex was a lazy old crinkled man. He was so lazy that he was the only one to get spanked finally Alex woke up. What's happening, there was a gigantic bang, we are under attack dippy get the commander in a safe place. We have met a giant sea scorpion fire! Grrrrrrh, help! I have been poisoned go and put him in the cooks' room NO! Why not it is perfectly safe in their LOOK! Fire help! Get commander Alex out of their you told me to put him in there, it is blazing with flames.

A sea ambulance came out and took burnt Alex and tow us back to shore. At home the news was on and Alex's wife was very proud of him his kids our call Jordan and tom. They waited at the harbour-inn. That was a pub next to the docking bay. Suddenly, there was the great royal ship, and then they had a welcome back party.
Post test story

One afternoon there was a pack of kid's going on a wood explore the kid's were carrying planks of wood they were going to make a secret club house in the woods the club house was going to have a secret under ground stash to keep the expensive goods. They carried animals to the clubhouse and placed them in the under ground house they took bed covers to make the beds and cover up the windows at night. The night came it got extremely dark, they settled in for the night it was very spooky at night, the wind was very strong the animals were very drowsy in the morning, they had breakfast with the animals, after breakfast they started building the club house was getting better by the minute the animals were proud of it. They had a lot of room to scatter around the place, the club house was great. A pack of grizzly bears attacked in the day their were building the club house when a enormous growling noise appeared, they got the weapons Rob and Tom got the bow's, Andy and Alex got the swords and the shields April had a sniper rifle. They started to walk towards the bushes the growling got louder they started to walk round the bushes fire! I have the grizzly's in sight. Rob fire a bow into the bears eye yes, I hit the bears eye the bears eye popped out and blood was gushing out of the eye socket the baby was injured they took the bear to the club house. They started to heal the bear.
Pre-test story

A Day in the wood

One day there was two little girls called Lily and Bethany. They went to find some berries but on the way back they lost their way. But on their way they found a house in the middle of the woods. The window was smashed, Bethany knocked and Lily said hello but nobody answered. Lily and Bethany said together hello is anybody in but nobody answered. So just then another bullet came shooting through the window. They quickly ran behind the sofa then Lily said this is scary and Bethany said I know. Just that moment they seen their friend Ashley on the sofa and Bethany said what are you trying to do to us? But Ashley said we thought you and Lily where robbers. But Ashley's mum helped them find their way back home and lived happily ever after.

HARRY assisted story

Lost in the woods

Two children where playing hide and seek. The two children where called April and Bethany. April was 9 and Bethany was 8. They lived in the woods. "Ready or not here I come" muttered April. "I give up" shouted April. Bethany was hiding under the bed. Bethany is a chatterbox because she never stops talking. "Don't shout so loud, someone will hear" whispered April. "I'm sorry." April was wearing rags and Bethany was wearing a black skirt and top. "Can we go and pick some berries?"

"Yes if you put your pinny on." "Ok" shouted Bethany in excitement. April and Bethany where soon ready. "I will wait out side. It's so exciting." whispered Bethany. Out through the time Bethany had she decided to go on her own. Bethany heard animal noises. She heard a ssssss sound it was a snake, but it wasn't an ordinary snake it was a python.

The python started to talk, "I am could Ssscar" slithering around her legs. "Oh I better go now" "SSSS don't go now." Interrupted scar in anger. "I think I need to make shelter because I think it is going to thunder." oh now the rain will wet my clothes."

"Where's my mobile" yelled Bethany it is thundering and lightning I have no where to go." said Bethany I think its hailing. Bethany heard a creak of a branch about to snap the splashing raindrops falling down. "Oh now I can here the air blowing really hard. If I don't get home soon I will get my death of cold and I won't have the energy to run home." Cried Bethany. "Well that's the point you're staying with me" slivered scar.

"Now it is night time I can escape," muttered Bethany in a whispering voice. "At last I can run my way back home. I am so glad I can go back home. LOOK THERE'S A HOUSE." "I can tell April all about it. I can't believe that I went on my own and I met a python. It wouldn't let me go, but when it was night time I decided to escape. That was when I seen the house.

Post test story

Chitty chitty bang bang

One day there were two children playing on the beach and there names where could Ellie and Sally. They where making sandcastles. They where both wearing swimming costumes, with a t-shirt on top. They put their t-shirt on because it was getting cold, the tide was coming in. But when they where eating there lunch they saw a pirate ship. Their dad was could Andy he was telling a story. Why Andy was telling the story the tide was coming in even more. Then they had a big BANG and it was the pirate's starting going towards them. They where surrounded by sea and they where in a car. Andy made the car but he didn't know that it floated so when their Dad said, "We will have to swim for it."
When Ellie was climbing over the front seat her foot hit something and some floats started to come out. "Wow" whispered Sally so they all got started to go around the sea. But the pirate's kept on bombing them so they had to go as fast as they could.

"I want that car," shouted the captain really loud. One of the other pirate's said "keep it down some of us are trying to sleep for our night shift so if we don't get any sleep we won't be able to get up at night for are shift. "Where are my spies?
You will swim to shore and make a plan."
"We will act like English men SO AKT LIKE ENGLISH MEN" said Kyle in madness" Look there's a brig so if we copy that on some kind of material we can trick them by putting it on the front of the brig."
"we've got the car it worked know we will take it back to the castle they wont know where it has gone ha ha ha ha ha."

"I don't know about you but I am a bit tired so if it is ok with you I will go to bed."

"Well I was thinking that to." Look there's a castle can we go down and have a look daddy. "Ok where going down look there's the car lets go and save it come on where coming to landing." Lets go and save chitty ok lets sneak and get chitty sneak sneak sneak look where write near her lets get in and where off safe and sound."
APPENDIX C:
PAPERS
Assessing aspects of children's written grammar: automating the process


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Received 12 October 2001; accepted 18 March 2002

Abstract

Teachers are expected to make regular assessments of pupils' writing, providing feedback about their strengths and weaknesses. If the computer could assist teachers in this task by effectively analysing the grammar element in children's writing, then the teacher's work load would be significantly reduced. A computer generated 'text analysis' of grammatical features would have the benefit of providing diagnostic information systematically and efficiently. Although text analysis is not new, it is generally restricted to applications aimed at adults. The development of a quantitative text analysis program, specifically geared to analysing children's writing was therefore considered profitable. This required an understanding of both the development of children's writing abilities and the criteria of the National Curriculum levels of attainment for the Standard Assessment Tasks (SATs). Ten grammar features were selected for analysis. Stories reflecting the spread of attainment associated with the end of Key Stage 2 were analysed. The computer successfully distinguished positive and negative grammar features within these texts. Nevertheless, an assessment of qualitative genre details made by teachers will still be required, in order to provide a balanced assessment which includes all elements that contribute to effective writing.

Keywords: Elementary education; Evaluation methodologies; Improving classroom teaching

1. Introduction

The British Government has set 'a challenging national target' for pupils in Literacy (www.standards.dfee.gov.uk/performance). Eighty per cent of 11 year olds are expected to achieve 'Level 4' or above in National Curriculum tests known as Standard Assessment Tasks (SATs) taken at the end of Key Stage 2. In both the 2000 and 2001 tests, 75% of 11 year olds achieved this minimum level of literacy. However, a breakdown of the figures reveals that,
although 82% of 11 year olds achieved Level 4 in reading in the 2001 tests, only 58% achieved the same level in writing. Assisted by government documents, primary teachers are required to further develop their pupils writing skills if the target is to be met. English: The National Curriculum for England (DfEE, 1999) identifies the levels of attainment and The National Literacy Strategy (DfEE, 1998) outlines teaching objectives for each of the year groups within the Key Stage. Teachers are expected to use the Literacy Strategy teaching objectives to help their pupils move from one National Curriculum level to the next.

An integral part of the process of teaching writing is the regular assessment of pupils' writing skills, which involves marking scripts and providing pupils with feedback about their performance. Marking guidelines for writing (QCA, 2001) encourages teachers to make detailed assessments of individual pupil's strengths and weaknesses. Teachers are expected to use a process similar to the mark scheme used to assess the writing element of the SATs at the end of Key Stage 2. This assessment is divided into two aspects: organisation and grammar (including punctuation). Briefly, to achieve Level 4, writing should be coherent and well paced, with a beginning middle and end suitably distinguished and events logically related, with some interaction between characters. Writing should also demonstrate: mostly correct use of full stops (including question and exclamation marks); some evidence of the correct use of commas to separate clauses and short phrases; some grammatically complex sentences, showing different types of connectives; some adventurous vocabulary (including adverbial and noun phrases) and consistent use of tenses. Knowledge of individual children's strengths and weaknesses can indicate which aspects require further practice. However, whilst assessing the organisation element of story writing is arguably straightforward, undertaking detailed analyses of children's grammar is a time consuming task which requires a comprehensive knowledge of grammar not necessarily possessed by teachers. If the assessment of children's grammar could be successfully automated by the computer, in the form of a text analysis program, then the teacher's feedback to pupils about their writing performance might be more effective, whilst their workload would be considerably reduced.

Text analysis programs already exist, but they are targeted at the way adults write rather than children. Two questions required consideration when programming a computer to analyse children's writing: which grammar features can be successfully detected by the computer and do these features demonstrate the difference between effective and poor writing skills? Based on the SATs grammar requirements, and research concerning children's grammar and punctuation development, 10 linguistic features; covering sentence construction, vocabulary and punctuation, were chosen for investigation. Stories reflecting the spread of attainment levels of 11 year old pupils were analysed by the computer to determine whether trends between the National Curriculum levels could be detected in these features. The statistical analysis was compared to a human interpretation of the syntactical patterns that contributed to the effectiveness of each text in order to understand the significance of the findings. The outcome was a formative set of results which could form the basis of a diagnostic tool for teachers, geared specifically for story writing at Key Stage 2.

2. Children's linguistic development

This literature review is restricted to research underpinning the national documents, which identifies children's linguistic development. For information about the mental processes that
affect writers' behaviour, the interested reader is directed to the work of, for example; Bereiter and Scardamalia (1987), Flower and Hayes (1981), Graves (1983), and Sharples (1999).

2.1. Vocabulary and syntax development

Drawing upon Quirk's (1972) descriptive grammar, Perera (1984) and Kress (1982, 2nd ed., 1994) have established several broad stages of linguistic development which children ensue as they develop into mature writers, although they hold different views concerning the reason for this common pattern of development. Perera perceived that children's writing development is influenced by the models of writing presented to them in published texts: as children grow older, the texts they read contain more mature writing styles, which are imitated by children in their writing. Kress identified the presence of maturity in writing when children learn to write sentences which display a different syntax to speech.

Briefly, the pattern of development proceeds broadly as follows. Initially, children characteristically write a few lines of text using simple vocabulary such as 'big', 'nice', 'said', 'went', 'saw', 'got' etc., recording their thoughts and ideas in simple sentences. Young children frequently exhibit excessive repetition of the same subject pronoun such as I...I...I or He...He...He. This reflection of the characteristic chaining syntax of speech results in a rather tedious writing style. Compound sentences are also a feature of early writing development. Typically, sentences are linked by several 'and's or 'and then's. For example: 'I went to the park and I fed the ducks and I went on the swings and then I went on the slide'. A more mature style develops as more sophisticated vocabulary is incorporated such as 'enormous', 'beautiful', 'whispered', 'ambled', 'fetched', etc. and when adverbs such as 'nearly' or 'quietly' are chosen to convey shades of meaning.

Other ways of writing sentences begin to be applied, such as replacing an 'and' with a full stop and beginning a new sentence, or substituting an alternative connective for 'and' such as 'when' or 'whilst'. Thus, the phrase 'the wind blew and the leaves fell from the trees' might be expressed by a more mature writer as 'when the wind blew, the leaves fell from the trees'. As children's use of compound sentences decreases, so their use of complex sentences, where an independent (main) clause is linked to dependent (subordinate) clauses, increases. Mature writing is thus characterised by the presence of subordinated and embedded clauses. Therefore, a young child might write: 'She ran quickly to get to the shop before it closed', whilst a mature writer might record the event as 'Running quickly, she reached the shop before it closed'. According to Perera, up to the age of nine years, most children display a lower level of grammatical maturity in their writing than in their speech. From then on, writing becomes increasingly differentiated from spoken language, employing a higher proportion of complex constructions and structures that rarely occur at all in spontaneous speech, which Perera suggests is influenced by reading. However, although linguistic maturity can be seen in terms of the writer's increasing ability to handle complex constructions successfully and immaturity evidenced by a succession of short simple sentences, mature writers recognise that there is no virtue in complexity for its own sake. Short, simple sentences should be interspersed between longer, more complex sentence constructions when writing a story, to achieve particular effects—short sentences can add suspense whilst long sentences comprised of several clauses, can enhance descriptions.
2.2. Punctuation

Punctuation is directly linked to grammar, as it is the purpose of punctuation to enable texts to be read coherently by displaying their grammatical structure. The key features are the sentence ending points and clause dividing commas (Crystal, 1995, p. 278). There has been little research into how punctuation is learned however—few studies have attempted to make comparisons over time to discover how use of punctuation develops, as most studies feature beginner writers, whether adults or children (e.g. Edelsky, 1983; Shaughnessy, 1977). As Hall and Robinson (1996, p. 1) commented, ‘the demands of the British National Curriculum documents were predicated upon virtually no research evidence’. However, the studies that have been undertaken, agree that understanding the punctuation system is a slow process because punctuation is a complex object. The central problem is that although ‘a sentence’ is readily defined by linguists, children have no notion of the concept of ‘a complete sentence’ (Hall, 1996). Kress (1994) suggests the cause of this problem: children spend the first few years of life in a world which is highly oral. The sentence is a unit of written language, not spoken, of which young children have little experience.

Hall (1996) has noted how the studies investigating children’s punctuation are unrelated pieces of research, which do not form a coherent picture. Nevertheless, some interesting observations have been made. Early writing by children is characterised by the absence of the sentence (Kress, 1982). If full stops are used, they are likely to be used to separate more easily understood units such as lines, pages or subjects. Cazden, Cordiero, and Giacobbe (1985) found five patterns of usage when children begin to use punctuation: interword, endline, endpage, phrase structure and correct usage, but more than one of these hypotheses were tried in a single story by all the children studied. Cordiero (1988) noted older children made phrasal misplacement errors, whereas younger children made errors related to fineness, wordness and pageness rather than syntactic categories. Wilde’s (1996) 2-year study, restricted to the development of just four punctuation marks, (full stops, question marks, commas and speech marks) revealed that children initially focus their efforts on full stops, then pay increasing attention to question marks, followed by commas, then speech marks. Anderson (1996) found that 7 year old children are more consistently accurate in their use of punctuation when their writing is restricted to simple sentences, than when they attempt more complicated sentence constructions. Hall (1998) found that 6 year old children are resistant to using punctuation, particularly full stops, despite regular reminders to include punctuation, suggesting that punctuation is meaningless to very young writers.

3. Text analysis programs

An analysis of the features contained within existing text analysis programs was necessary to help identify appropriate features. Applications such as ‘Writer’s Helper for Windows’ (1992) and ‘Writer’s Toolkit’ (1996) carry out objective, statistical analyses of features such as word frequencies and sentence lengths. The applications are targeted at adults however, who are expected to be already highly competent at writing, as they highlight for instance: split infinitives, sentences longer than 50 words, weak phrases, percentage of abstract words, percentage of passive sentences and readability scores, as do modern word processors. Writers are expected to interpret the significance of the statistics, using the information to improve their texts accordingly. Text analysis
is usually regarded as unsuitable for children however, as much of the available statistical information is inappropriate and the method of presentation is likely to be meaningless to them. A statistical analysis of stories written by children could be of benefit to teachers and ultimately to pupils however, if the features analysed were made specifically relevant to children's writing and if the analysis was presented in a way that is meaningful. The question that required consideration was: what information would be useful to teachers and children? An analysis of stories written by children was required to demonstrate which grammar features could be successfully and usefully detected by computer.

4. The study

4.1. Method

An analysis was performed upon a small sample of 12 stories written by Year 6 children (aged 11) for the SATs writing test. The stories were obtained from two publications, provided by School Curriculum and Assessment Authority in association with The Times (1997, 1998) as examples of the different standards of attainment associated with the end of Key Stage 2. Table 1 shows the range of levels of the sample texts. These examples were chosen for analysis because they had been objectively marked by official examiners who had selected them as suitably representative of the different National Curriculum levels. The most significant and unique feature of the sample, was the availability of detailed written comments from the assessors which highlighted why each story achieved a particular level. The sample was limited in size because these stories are the only test examples currently publicly available that are accompanied by such written comments. Despite its small size, the sample was considered useful for a formative study to establish a methodology which could indicate strengths and weaknesses in children's written grammar. The benefit of performing a computer statistical analysis on this particular collection of stories was that the computer analysis could be compared to a reliable and objective human interpretation. A possible outcome of the study could be a proposal to conduct further analysis of a larger number of stories, which could be developed into a more comprehensive text analysis program geared specifically to children's narrative writing.

4.2. Features of writing selected for analysis by the computer

Based on the findings of the research already referenced and upon a selection of features covering vocabulary, syntax and punctuation, outlined in the National Curriculum levels, 10 indicators of language skill were chosen for analysis. A ‘Check Text’ program, written in Visual Basic

| Examiners’ assessment of sample children’s stories from Key Stage 2 National Curriculum tests |
|----------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Story number                     | 1   | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  |
| Score                            | 10  | 17  | 20  | 21  | 24  | 25  | 26  | 28  | 30  | 32  | 33  | 35  |
| National Curriculum level        | 2a  | 3b  | 3a  | 4a  | 4b  | 4a  | 4a  | 5c  | 5b  | 5a  | 5+  | 5+  |
Table 2
Number of words in stories in sample stories at the end of Key Stage 2

<table>
<thead>
<tr>
<th>Story number</th>
<th>1</th>
<th>2</th>
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<th>7</th>
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<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Curriculum level</td>
<td>2c</td>
<td>3b</td>
<td>3a</td>
<td>4c</td>
<td>4b</td>
<td>4a</td>
<td>4a</td>
<td>5c</td>
<td>5b</td>
<td>5a</td>
<td>5+</td>
<td>5+</td>
</tr>
<tr>
<td>Total words</td>
<td>228</td>
<td>289</td>
<td>246</td>
<td>380</td>
<td>316</td>
<td>364</td>
<td>385</td>
<td>400</td>
<td>394</td>
<td>447</td>
<td>608</td>
<td>829</td>
</tr>
</tbody>
</table>

Script, was created to supply statistical information about each text. The information was then compared to the examiner’s interpretation of the syntactical patterns that contributed to the effectiveness of the text. Underpinning this study is the understanding that children’s writing develops at different rates along the different dimensions. An increase in vivid vocabulary for instance, may not be accompanied by a similar growth in ability of handling a range of sentence structures. Thus, several strands of language were selected for this investigation.

The 10 indicators were:

1. the total length of the story (in words);
2. the number of different words used in the first 100 words;
3. common verbs used (said, went, got, get, was, were) as a percentage of total number of words;
4. number of different words with more than 5 characters as a percentage of total words;
5. number of adverbs as a percentage of total words;
6. the number of ‘and’s used as a connective as a percentage of the total words;
7. basic common connectives (but, so, then, because) as a percentage of the total number of words;
8. the percentage of sentences started with basic words (personal pronouns, and the definite article);
9. mean sentence length; and
10. commas used as a percentage of mean sentence length, as a measure of the presence of clauses.

5. Results

5.1. Comparison of output

The results of the comparison of output from the sample stories, as shown in Table 2, indicate that the length of a story correlated successfully with the level of attainment achieved: the longer the story, the higher the level achieved. It would appear that a minimum of approximately 300 words is required to explain a story in sufficient detail in order to gain level 4, whilst the ability to write approximately 400 words, or more, is likely to achieve level 5. This is clearly the least satisfactory of the 10 indicators, but the trend is obvious.

5.2. Vocabulary

Four tests were devised to detect variety and the presence of simple and sophisticated vocabulary.
<table>
<thead>
<tr>
<th>Story number</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Curriculum level</td>
<td>2c</td>
<td>3b</td>
<td>3a</td>
<td>4c</td>
<td>4b</td>
<td>4a</td>
<td>4a</td>
<td>5c</td>
<td>5b</td>
<td>5a</td>
<td>5+</td>
<td>5+</td>
</tr>
<tr>
<td>TTR</td>
<td>0.54</td>
<td>0.60</td>
<td>0.61</td>
<td>0.64</td>
<td>0.66</td>
<td>0.59</td>
<td>0.68</td>
<td>0.61</td>
<td>0.73</td>
<td>0.75</td>
<td>0.65</td>
<td></td>
</tr>
</tbody>
</table>

Table 3
Harpin's type token ratio (TTR) for the sample stories

5.2.1. Variety of vocabulary
Harpin's (1976) technique for testing for the variety of vocabulary contained within texts written by children of different ages was applied and extended. This involved expressing the number of different words used (type) as a proportion of the total number of words (tokens), producing a type-token ratio (TTR). For example, a paragraph containing 100 words could contain 65 different words. This would give a ratio of 0.65. Like Harpin, the TTR was calculated for the first 100 words of each of the 12 stories. The results are recorded in Table 3. Broadly, the lower levels of attainment resulted in low TTR ratios whilst the higher levels of attainment resulted in higher TTR ratios, although the results inevitably deviated on occasion depending on the strengths and weaknesses of the particular young writer and on the theme and organisation of the story. The figures reflected the comments made by the examiners: the variety of vocabulary in stories 10 and
Table 4

<table>
<thead>
<tr>
<th>Story number</th>
<th>National Curriculum level</th>
<th>% Of common verbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2c</td>
<td>9.6</td>
</tr>
<tr>
<td>2</td>
<td>3b</td>
<td>2.8</td>
</tr>
<tr>
<td>3</td>
<td>3a</td>
<td>5.7</td>
</tr>
<tr>
<td>4</td>
<td>4c</td>
<td>4.7</td>
</tr>
<tr>
<td>5</td>
<td>4b</td>
<td>4.9</td>
</tr>
<tr>
<td>6</td>
<td>4a</td>
<td>4.9</td>
</tr>
<tr>
<td>7</td>
<td>5c</td>
<td>3.3</td>
</tr>
<tr>
<td>8</td>
<td>5b</td>
<td>5.6</td>
</tr>
<tr>
<td>9</td>
<td>5a</td>
<td>4.7</td>
</tr>
<tr>
<td>10</td>
<td>5+</td>
<td>2.3</td>
</tr>
<tr>
<td>11</td>
<td>5+</td>
<td>4.7</td>
</tr>
</tbody>
</table>

11 (with a TTR of 0.73 and 0.75, respectively) were especially commented on, whilst the lack of variety or frequent repetition in stories 1 and 2 (with a TTR of 0.54 and 0.60) was also noted. Stories 5 and 8, with a TTR of 0.68, received comments such as 'some well chosen vocabulary'. Harpin (1976) suggested that the sharper the drop in TTR after the first 100 words, the less diverse a child's vocabulary resources were likely to be. The drop in TTR after each subsequent 50 words for all the stories was therefore recorded and plotted in order to determine whether the rate of drop correlated with the levels of attainment. The graph was then normalised with respect to the initial value to illustrate more clearly the rate of drop and this is presented in Fig. 1.

Whilst the TTR for the story achieving Level 4 dropped sharply, there was little to discriminate between the other levels. Although Harpin was correct in his hypothesis that the rate of fall in the TTR would reveal the extent of variety of a child's vocabulary, the results did not prove useful in a quantitative analysis of the various levels. The TTR of the first 100 words gave the clearest indication of the diversity of a child's vocabulary resources.

5.2.2. Common verb forms

As simple verbs such as *said, went, was, were, got* and *get* are commonly used by young, beginner writers, it was anticipated that children achieving higher levels would demonstrate their ability to express themselves clearly through the use of alternative verbs to *said, went,* etc. in order to describe actions precisely. The percentage of words used, which were common verbs, was therefore calculated and is presented in Table 4. As expected, story 1, achieving Level 2c had a high dependence on common verbs. Story 2 used surprisingly few. This may have been because the story lacked dialogue with the result that the verb 'said', frequently over used by immature writers, was not used at all. The stories achieving Level 5c and above, with the exception of stories 9 and 12, showed less of a dependence on the common verbs than the stories achieving the lower levels.

5.2.3. Word length

A test was designed which attempted to detect the degree of sophistication of words used, as evidence of mature writing. It assumed that a sign of more sophisticated vocabulary is a frequent use of long words; that is moving away from using simple, short words like 'big' and 'nice', to using more sophisticated, longer words like 'enormous' and 'beautiful'. However, the computer would be unable to distinguish between basic but 'long' words such as 'lovely' or 'netball', and more adventurous and imaginative vocabulary such as 'glistened' or 'irritating' used to create poetic effects, personification, alliteration, assonance and metaphors, etc. Words longer than 5 letters, excluding repeated words, were counted and recorded in Table 5. Generally, the results were consistent with the examiners' comments about vocabulary choice. Story 1 for example, was
Table 5
Words greater than 5 letters used in each sample story as a percentage of total words

<table>
<thead>
<tr>
<th>Story number</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
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<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Curriculum level</td>
<td>2c</td>
<td>3b</td>
<td>3a</td>
<td>4c</td>
<td>4b</td>
<td>4a</td>
<td>4a</td>
<td>5c</td>
<td>5b</td>
<td>5a</td>
<td>5+</td>
</tr>
<tr>
<td>% Of words &gt;5 letters</td>
<td>10.1</td>
<td>15.2</td>
<td>12.2</td>
<td>13.9</td>
<td>15.2</td>
<td>13.2</td>
<td>11.7</td>
<td>17.3</td>
<td>14</td>
<td>21.3</td>
<td>18.1</td>
</tr>
</tbody>
</table>

Table 6
Adverbs used in each sample story as a percentage of total words

<table>
<thead>
<tr>
<th>Story number</th>
<th>2</th>
<th>3</th>
<th>4</th>
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<th>6</th>
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<tbody>
<tr>
<td>National Curriculum level</td>
<td>2c</td>
<td>3b</td>
<td>3a</td>
<td>4c</td>
<td>4b</td>
<td>4a</td>
<td>4a</td>
<td>5c</td>
<td>5b</td>
<td>5a</td>
<td>5+</td>
</tr>
<tr>
<td>% Of adverbs</td>
<td>0.4</td>
<td>0.3</td>
<td>1.6</td>
<td>1.1</td>
<td>1.3</td>
<td>0.8</td>
<td>0.3</td>
<td>0.8</td>
<td>1.8</td>
<td>2</td>
<td>1.8</td>
</tr>
</tbody>
</table>

described as containing very simple vocabulary; story 7 was noted for its choice of appropriate vocabulary, whilst stories 5, 6, 8, 10 and 11 were reported to have some well chosen and imaginative vocabulary. Stories 7 and 12 had fewer long words than might be expected for the level achieved, corresponding to relatively few sophisticated words present in their writing. This could indicate a weakness in the writing skills for the young writers concerned, or merely that the writers felt simpler words were appropriate on this occasion.

5.2.4. Adverbs
Another aspect of vocabulary growth, is the range of senses which words can communicate. This means taking account of the shades of meaning that can be attributed to words. As the adverbial element in a sentence provides important information about the time, manner, place and reason, of the actions of the verb, a higher proportion of adverbs present in a story could therefore indicate a more sophisticated vocabulary. The percentage of words used in a text which are single word adverbs ending by, is recorded in Table 6. As might be expected, stories 9–12, achieving Level 5b and above, used the highest proportion of adverbs whilst stories 1 and 2 used the lowest proportion. The effective use of adverbs in stories 9–12, to enhance descriptions, such as 'slowly sank' and 'floating aimlessly' were noted by the examiners. Story 3 revealed a surprisingly high proportion of adverbs. The examiners noted the beginnings of adventurous language, evidenced by adverbs such as 'eventually', although the majority were basic adverbs such as 'you've only just got here' and 'happily ever after'. Further analysis of story 7 confirmed the lack of adverbs as indicated by the figure, but revealed a greater use of adjectives and adjectival expansion instead, such as 'deep, rough sounding voice', which had not been checked for by the computer.

5.3. Sentence construction

Two tests were performed to analyse sentence construction: checking for the use of basic sentence connectives and the writer's ability to handle different sentence constructions.
Table 7
Number of basic connective words used in each sample story as a percentage of total words:

<table>
<thead>
<tr>
<th>Story number</th>
<th>1</th>
<th>2</th>
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<tbody>
<tr>
<td>National Curriculum level</td>
<td>2c</td>
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<td>3a</td>
<td>4c</td>
<td>4b</td>
<td>4a</td>
<td>4a</td>
<td>5c</td>
<td>5b</td>
<td>5a</td>
<td>5+</td>
<td>5+</td>
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<tr>
<td>% And</td>
<td>4.8</td>
<td>4.8</td>
<td>8.5</td>
<td>2.1</td>
<td>4.4</td>
<td>3.3</td>
<td>3.6</td>
<td>2</td>
<td>4.3</td>
<td>2.5</td>
<td>2</td>
<td>2.5</td>
</tr>
<tr>
<td>% Basic connectives</td>
<td>0.9</td>
<td>0.7</td>
<td>2.4</td>
<td>2.9</td>
<td>1.9</td>
<td>2.5</td>
<td>2.6</td>
<td>2</td>
<td>3</td>
<td>0.9</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>5.7</td>
<td>5.5</td>
<td>10.9</td>
<td>5</td>
<td>6.3</td>
<td>5.8</td>
<td>6.2</td>
<td>4</td>
<td>7.3</td>
<td>3.4</td>
<td>4</td>
<td>3.5</td>
</tr>
</tbody>
</table>

5.3.1. Connectives

As beginner writers show a heavy dependence upon the connective 'and' before progressing towards using other basic connectives (so, but, then and because), use of 'and's was investigated separately to the other connectives. The number of times basic connectives are used in a text would be expected to be proportionally fewer in the writing achieving the higher levels, than in the writing achieving the lower levels, as alternative connectives would be present. The number of 'and's in particular would be expected to be highest at the lowest levels. Table 7 records the total percentage of basic connectives to the total number of words for each story together with a breakdown of the percentage of 'and's and other basic connectives. Broadly, the stories achieving the lower levels showed a dependence on basic connectives, whilst the stories achieving the higher levels revealed less of a dependence. Stories 1 and 2 contained a high percentage of 'and's, also commented on by the examiners, but few common connectives, indicating that these writers had not progressed from the simplest of sentence constructions. Whilst the writing contained in story 3 revealed an over dependence upon the connective 'and', a high percentage of other basic connectives is also evident, indicating that the writer, although immature, was more advanced than the writers of stories 1 and 2. Stories 8, 10–12 displayed a lower dependence on basic connectives, as might be expected in writing achieving a high level. Stories 7 and 9 displayed a surprisingly high level of dependence upon basic connectives, indicating a weakness in otherwise effective writing.

5.3.2. Varying sentence construction

It was anticipated that immature writers would frequently start sentences in a similar way, but that mature writers would find alternative ways to vary the start of a sentence. A test aiming to check for the writer's ability to handle different sentence constructions, particularly varying the usual starting words for sentences, was devised. It assumed that sentences starting with pronouns (He, She, His, Her, They, We, I), or the definite article are fairly straightforward constructions and likely to be used by immature writers. The proportion of sentences starting with a pronoun or the definite article was therefore checked for in each story, on the assumption that these would be proportionally higher in the stories achieving the lower levels and the results are presented in Table 8. The results showed that stories 1 and 3 did not use any simple sentence starters. However, story 1 contained only three 'sentences'! Closer inspection of story 3 revealed other simple sentence starters not detected by the test, such as 'so' and 'then', had been used frequently. Stories 2, 7 and 8 showed a heavy dependence on pronouns as a means of starting a new sentence. As stories 7 and 8 achieved a high level, the unusually high percentage of pronouns used at the start...
Table 8
Simple sentence starters (SSS) used as a percentage of total number of sentences in each sample story

<table>
<thead>
<tr>
<th>Story number</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Curriculum level</td>
<td>2c</td>
<td>3b</td>
<td>3a</td>
<td>4c</td>
<td>4b</td>
<td>4a</td>
<td>4a</td>
<td>5c</td>
<td>5b</td>
<td>5a</td>
<td>5+</td>
<td>5+</td>
</tr>
<tr>
<td>SSS</td>
<td>0</td>
<td>66.7</td>
<td>0</td>
<td>34.6</td>
<td>50</td>
<td>57.1</td>
<td>54.5</td>
<td>34.8</td>
<td>37.2</td>
<td>33.3</td>
<td>41.5</td>
<td></td>
</tr>
</tbody>
</table>

Table 9
Mean sentence length in words for each sample story

<table>
<thead>
<tr>
<th>Story number</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Curriculum level</td>
<td>2c</td>
<td>3b</td>
<td>3a</td>
<td>4c</td>
<td>4b</td>
<td>4a</td>
<td>4a</td>
<td>5c</td>
<td>5b</td>
<td>5a</td>
<td>5+</td>
<td>5+</td>
</tr>
<tr>
<td>Mean sentence length</td>
<td>76</td>
<td>19.3</td>
<td>22.4</td>
<td>14.6</td>
<td>15.8</td>
<td>12.6</td>
<td>13.8</td>
<td>18.2</td>
<td>17.1</td>
<td>10.4</td>
<td>9.2</td>
<td>12.8</td>
</tr>
</tbody>
</table>

of a sentence indicated a weakness in the sentence construction of these particular writers. The lower percentage of simple sentence starters recorded for stories 6, 10 and 11 accurately reflected a more varied style, but the low score for story 6 was misleading. The writer had included a high proportion of dialogue; the story was effectively a play script rather than narrative writing, which commands a different writing style.

5.4. Punctuation

5.4.1. Full stops
An analysis of average sentence length in words was performed (Table 9) in the expectation that it would reveal few instances of insufficient full stops and that these would occur generally at the lower levels. The examiners' comments about story 1 concerning a complete lack of punctuation is supported by the analysis of sentence length. Clearly, an average sentence of 76 words has a frequent lack of full stops! The average sentence lengths for stories 2, 3 and 8 are also high. The figures correspond to the examiners' verdict that not all the sentences had been correctly demarcated in these stories. Further analysis of the figures in conjunction with the examiners' comments revealed that the mean sentence length gives more information about sentence construction than at first appears. The low figures for stories 6, 10 and 11 appear to show a dependence on simple sentence structure and a lack of variation in sentence length. This was commented upon as a weakness in stories 6 and 11, although the 'short punchy' and 'compact descriptive' sentences in story 10 were an apparent strength. It would seem that an average sentence length of between approximately 12 and 16 words is to be aimed for. This figure will be achieved through a wide variation in individual sentence length however.

5.4.2. Commas
As a sign of more advanced writing skills, is the presence of complex sentences and an understanding of the ways commas should be used to punctuate clauses within complex sentences, mature writers would be expected to make a greater use of commas to mark such grammatical
boundaries than immature writers. A comparison was therefore made of the number of commas (excluding commas used in lists or numbers) in relation to the average sentence length which is recorded in Table 10. The method of dividing the mean sentence length by the number of commas was particularly useful for discriminating between the middle and higher levels, although again, deviations from expected scores indicated either a relative strength, or weakness in punctuation for a particular writer. Smaller numbers indicate a more frequent and secure use of commas associated with the higher levels of achievement. Thus, the stories achieving Level 2, 3b, 3a and 4c had a high figure ranging from 11.2 to infinity; the stories achieving Level 4a, 5c and 5b had a figure around the number 1, whilst the stories achieving Level 5a and 5+ had a figure smaller than 1. In the first three stories, few commas were used to demarcate clauses.

5.5. Examples of individual story assessments

Analysing the results for an individual story rather than a particular grammar feature gives a good indication of the level of maturity displayed by the writing. Thus, for example, story 3 (which achieved Level 3) displayed a low level of maturity as it lacked detail (246 words) and demonstrated a general lack of variety of words (TTR = 0.61), although some more sophisticated vocabulary in the form of adverbs (1.6%) was detected. Immature sentence constructions were evident, demonstrated by a high dependence upon basic connectives (10.9%), especially ‘and’ (8.5%), a high average of words per sentence (22) and a lack of commas demarcating clauses. An average sentence length of 22 words indicated a slightly insecure use of full stops. This grammatical analysis by the computer generally supports the examiners’ comments for this story: although the story contained mostly simple adjectives and adverbs, there was evidence of some adventurous vocabulary and some grammatically complex sentences. However, clauses were linked together with mostly simple connectives and only half the sentences were correctly punctuated with full stops. As might be expected, story 10 (which achieved Level 5) was a detailed story (447 words), containing a variety of sophisticated vocabulary (TTR = 0.73, words > 5 letters = 21.3%, adverbs = 1.8%). The writer used full stops accurately (mean sentence length = 10.4 words) and commas to demarcate clauses (0.3). Although the high incidence of commas indicates the presence of complex sentence constructions, the writing lacks a variety of sentence lengths. The low dependence upon basic connectives (0.9%), including ‘and’ (2.5%) is further evidence of mature sentence constructions. Again, the computer analysis supports the examiners’ verdict: the story contained mostly correct punctuation, including commas to clarify meanings; varied vocabulary, including patterning, personification and metaphors and a wide variety of sentence structure, including short punchy sentences and compact descriptive sentences.

Table 10
Mean sentence length divided by number of commas for each sample story

<table>
<thead>
<tr>
<th>Story number</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
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</tr>
</thead>
<tbody>
<tr>
<td>National Curriculum level</td>
<td>2c</td>
<td>3b</td>
<td>3a</td>
<td>4c</td>
<td>4b</td>
<td>4a</td>
<td>4a</td>
<td>5c</td>
<td>5b</td>
<td>5a</td>
<td>5+</td>
<td>5+</td>
</tr>
<tr>
<td>Commas</td>
<td>∞</td>
<td>4.8</td>
<td>11.2</td>
<td>3.7</td>
<td>0.66</td>
<td>1.1</td>
<td>1.1</td>
<td>1</td>
<td>1.3</td>
<td>0.3</td>
<td>0.2</td>
<td>0.4</td>
</tr>
</tbody>
</table>
6. Conclusions

It was not the intention of this study to carry out a complete grammatical analysis, but to investigate some of the constructions that provide evidence of differences in maturity in children's writing. A complete linguistic analysis of children's writing by the computer has not been undertaken. Absent, for example, is information about the kinds of subordinate clauses used by the children in their writing and the use made of adjectives and adjectival expansion etc. to achieve particular effects. However, the 10 criteria which were selected for investigation, showed evidence as to their value as measures of the strengths, and weaknesses, in the writing of individual children. This formative study demonstrates the potential value of undertaking further research, involving a greater number of stories.

The results indicate that the computer can identify key differences between mature and immature writing with regard to grammar. Story length correlated most successfully with the National Curriculum levels of attainment, although this feature was the least satisfactory. Investigating the percentage of the connective 'and' present in the writing samples successfully highlighted immature writing. By detecting the use of the connective 'and' separately to other basic connectives, it is possible to identify more clearly the stage a writer is at: from complete beginner to an advanced writer. Harpin's TTR method proved a reasonable indicator of vocabulary resources, although analysing the rate of drop in the TTR, after the first 100 words, did not, as hypothesised by Harpin, contribute to the task of differentiating between the levels. The test identifying simple sentence starters would benefit from further refinements. It may prove beneficial to investigate other sentence starters in addition to pronouns and the definite article. Counting sentence lengths in words was reasonably successful at indicating both the insecure and secure use of full stops characteristic of immature and mature writers, respectively. In addition, the test indicated the range of sentence constructions evident in a text. However, the most useful test for discriminating the level of maturity in a writing sample was the mean sentence length to comma ratio, indicating the presence of clauses. A writer who is able to correctly punctuate subordinated and embedded clauses contained within complex sentences, is clearly a mature writer.

A computer analysis of samples of writing can thus reveal the level of grammatical maturity the child has reached. Mastery of most grammatical structures is evidence of mature writing—pupils achieving the higher National Curriculum levels are expected to demonstrate a varied and sophisticated vocabulary, a wide range of sentence constructions and accurate punctuation. However, whilst a statistical analysis of children's written grammar could be useful to teachers, they would also require assistance with interpreting the results, in order to understand their significance. Thus, rather than simply state that the average number of words per sentence is 15 for example, or that basic connectives account for 4.5% of all words used in a text, information would need to be supplied, stating whether these are desirable features or not.

Writing cannot be assessed by levels of grammatical maturity alone however. Whilst an analysis of particular grammar features can indicate why some texts succeed better than others—a task which can be fulfilled by a computer, it is essential that any assessment considers writing holistically as well. There is little point in a child's story containing mature patterns of sentence structure and varied and sophisticated vocabulary, if the writing is boring, lacks organisation and has little plot. Without a holistic assessment, the computer is merely making superficial judgements based on the surface features of a text. Thus, although the computer can assess the level of
grammatical maturity in a piece of writing, it is unable to use the information to ascribe National Curriculum levels. Nevertheless, a computer analysis of vocabulary use and syntax could be a useful diagnostic tool for teachers who lack the time or necessary linguistic knowledge to undertake the task of careful 'reading' between the words in order to consider the syntactical patterns which contribute to the effectiveness of a text. As The Grammar Papers (QCA, 1998) concludes, drawing explicit attention of the syntactic features of pupils' writing can increase pupils awareness of how language works, which in turn may increase their control over their writing.

References


Brighton: Falmer Books.


A 'computer tutor' to assist children develop their narrative writing skills: conferencing with HARRY

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Received 29 November 2001; accepted 2 April 2003

Abstract

The purpose of this study was to test the hypothesis that a computer tool can change the way children approach the task of writing and improve their writing performance. HARRY, a web-based computer tutor, provides a Vygotskian-like scaffolding of the knowledge transforming mature writing process and presents it to children individually in a conference situation. The effects of the computer tutor are analysed by comparing stories produced by three children of varied writing ability, who wrote a control and a HARRY-assisted story, and by observing the children as they wrote. A control group also wrote two stories without receiving assistance for either story. The study's hypothesis was confirmed. With HARRY's assistance, the children wrote better stories and employed the revision process characteristic of mature writers. Vygotsky's work suggests that children will learn to adopt the mature approach from repeated use of the system and that the scaffolding should be reduced gradually. However, as the system relied upon the children's willingness to first request, then act upon the available guidance, the system would benefit from further development to ensure children interact sufficiently with HARRY.

Keywords: Writing models; Intelligent prompting

1. Introduction

Writing is recognized as a craft and the teacher, as the more experienced craftsperson, has the role of explaining to pupils the skills of the trade (Graves,
1983). Many primary teachers perform this task by sharing and guiding writing with the whole class prior to the children writing. Using dialogue, they demonstrate the thought processes that are involved in the task whilst explaining literary techniques specific to the genre. In addition, many teachers provide pupils with feedback concerning grammar weaknesses such as spelling mistakes, places where full stops and commas have been omitted, basic sentence constructions and repetitive or simple vocabulary.

HARRY, a web-based ‘computer tutor’ for narrative writing, is currently being developed to assist teachers in communicating effective narrative writing skills, by delivering a structured dialogue which shares and guides story writing with children individually as they write, in a conference situation, followed by editing feedback suggestions. This would be of benefit to teachers, for although conferencing with children individually is recognized as a profitable approach, constraints such as lack of time and large class sizes deter teachers from performing individualized tutoring themselves. Furthermore, pupils react more favourably to individualized assistance from computers than from human tutors. Zellermayer et al. (1991) noted how working with human tutors caused visible irritation and psychological reactance, which was not apparent when pupils worked with their computer system.

Written interactions (prompts) are presented to pupils before, during and after they write. HARRY guides the structure of the narrative, encouraging children to remember to include relevant material whilst providing assistance in the choice of appropriate vocabulary and sentence construction, so that the resultant text conforms to the genre of narrative writing. HARRY enables young writers to make their texts evolve by guiding their revision and editing. The intention is that children improve upon their usual linear rambling approach (the ‘what next?’ strategy, outlined later in the paper) by experiencing the idiosyncratic creative process of mature writers.

HARRY is based upon models of the writing process for both mature and beginner writers and models for teaching. The system is simultaneously a cognitive tool designed to engage pupils in higher cognitive operations and a tutor designed to impart expert knowledge. Children’s narrative writing performance is improved through a system of prompting which provides a Vygotskian-like scaffolding (Vygotsky, 1962) of the process of mature writers. In addition, cognitive conflict is deliberately induced. Strategies designed to lead to more effective writing are not imposed, but are negotiated and exchanged with young writers; a process which challenges them to both think like mature writers and employ literary techniques essential for the creation of effective narrative writing.

2. Writing models

2.1. The writing process for mature writers

Cognitive psychologists such as Flower and Hayes (1981) have broken the writing processes of mature writers into component sub-processes. It is assumed that writers
have limited capacity for attention, so trade-offs have to occur in the way in which they allocate attention to these sub-processes. Thus, the more attention writers have to pay to memory, the less they have available for translating thoughts into words or for thinking about punctuation, etc. Flower and Hayes describe their model as a cognitive process model which they contrast with a stage model. A stage model implies that writing can be broken into discrete linear stages such as planning, writing and revising, with planning occurring before writing and writing occurring before revision. By contrast, their cognitive model takes the view that the processes involved in writing are recursive and that the observable stages of writing (brainstorming, planning, composing, reviewing and revising) take place throughout the process. One plans, sets off writing, reconsiders the plan, writes more, revises the first section, plans further steps, writes again, etc. For mature writers, writing is an idiosyncratic process of continual revision—ideas emerge and evolve, and meanings are clarified in successive drafts.

2.2. The writing process for beginner writers

Bereiter and Scardamalia (1987) made the distinction between the knowledge-transforming composing approach adopted by mature writers and the knowledge-telling approach adopted by children which they refer to as the ‘what next?’ strategy. Children usually start a story writing episode by composing a short segment that captures their first idea in writing and then reply to the question ‘what next?’ with another event. The child does not consciously form the ‘what next?’ question in the mind, but continues as if it had been asked. A text is arranged around a series of written events, coordinated by adjacency or by simple connectives. Therefore, the child writes down an initial idea, then uses this as a cue to probe the memory for associated ideas, keeps going until the ideas stop flowing. However, creating and transcribing a chain of associations leaves no space for reflection—the process characteristic of mature writers. Children are unable to reflect as reflection requires temporarily abandoning current ideas, returning to them later by either remembering the previous context or by rereading the text, which they find difficult.

The ‘what next?’ strategy results in several problems. Children ‘ramble on’ when writing (Alexander and Currie, 1998) unable to think beyond the present sentence. Consequently, they write without visualizing an overall ‘plan’ and stop writing when they run out of ideas. The approach is responsible for the ways children usually develop their narratives—categorized by Kroll and Anson (1984) as ‘associational’ (where the writing is about a series of incidental events with no real coherence); ‘descriptive’ (where the writing is a catalogue of details with no development); ‘unanchored action’ (a sequence of events with no setting or context); ‘entanglements’ (where the events become over involved and no resolution is possible) and ‘abandonment’ (where the writing just ends). Furthermore, children rarely initiate revisions to their writing. At best, children proof read at a superficial level, restricting their revisions to the correction of a few spelling or punctuation errors, or the addition of a few lines of text at the end of a story (Baskerville, 1986).
Beginner writers seldom make more global changes, such as starting again, adding or deleting words, sentences or ideas in order to clarify the meaning (Shaughnessy, 1977). Thus, for beginner writers, writing is a one-step linear process.

Bereiter and Scardamalia (1982, 1983, 1986) have identified the main cause of the linear 'what next?' approach adopted by children—lack of a response from a conversational partner during the process of writing. When they compose alone, children 'dry up' and run out of things to write about due to an inability to recall ideas they in fact already have. Children also tend to assume that the audience shares their background to the events. Therefore, they often fail to produce all the information required to convey the intended meaning clearly. Prompting from a response partner helps children retrieve relevant information. An example or a suggestion initiates a chain of alternative ideas to pursue. A few appropriate words and phrases are often sufficient to stimulate children's memory searches.

Children will improve their writing only in response to feedback, which may be provided either by teachers or peers (e.g. Hillocks, 1982; Trushell, 1986). Bereiter and Scardamalia (1987) base their explanation for children's lack of revision in the absence of feedback, on Piagetian (Piaget, 1926) theories of cognitive development. Revision problems are seen to stem from an inability to represent an event from two points of view—their own and that of the reader, suggesting that children will only learn to maintain two points of view and make decentred comparisons between them, when their egocentrism eventually diminishes. Bartlett (1982) suggests an alternative view—that revision involves two key processes: detecting (including identifying) the problem, followed by the ability to correct it successfully. For mature writers, detection and correction are performed simultaneously, but for young writers, difficulties can arise in either of the processes—a failure to detect the problem, and/or failure to make an appropriate correction.

The inability to look beyond the present sentence and visualize the overall shape of a complete text appears to be a more difficult problem to overcome. When young children attempt to record plans in advance of writing, the notes they produce effectively amount to a first draft (Burtis et al., 1983). After experimenting with several strategies, Bereiter and Scardamalia (1986, p. 790) concluded that interventions that have a significant effect on planning 'remain to be demonstrated'. Wray and Lewis (1995) suggest the most profitable approach for assisting young children with planning, is to provide 'writing frames'—skeleton frameworks of texts which ensure that children remember to include all the essential features relevant to specific genres.

The speed with which children develop more mature thinking strategies depends partly upon maturation, but also on classroom climate and the kind of support they receive from teachers (White, 2000). Progress may not be steady (Harpin, 1976) and may not necessarily result in improvements in writing quality (Langer, 1969). Increased ability to plan and reflect may even produce writing of a lower quality (Karmiloff-Smith, 1992) as the child may apply poorly understood theories or the process of reflection may disrupt the flow of ideas.
3. Teaching models

Current teaching practices are derived from two models: the process model and the guided approach. With the process model (Graves, 1983; Murray, 1984; Calkins, 1986), children receive support whilst they write, from a teacher who moves around the class conducting frequent short conferences individually with each pupil in turn. Each conference focuses on a single aspect, such as supplying a character description. The teacher follows the lead of the child, receiving the child's own choice of words, before encouraging the child to reflect upon the clarity of the text. New ideas resulting from the conferences are recorded in successive drafts. By encouraging and responding to the child with comments like, ‘Tell me where you have got to so far with your story about a dog... does the dog bark loudly like that at all the neighbours? What are you planning to write about next?’, conferences help children discover what they want to say. Process modellers stress that conferences should avoid negative comments and explicitly telling the child what to do. Instead, children are engaged in cognitive conflict, a process which challenges them to think of their own ways to improve their texts. Through extended experience of this process, it is suggested that children find their voice and a sense of control and ownership over what they produce.

However, the approach is difficult to implement effectively. Bereiter and Scardamalia (1986) doubted whether many teachers had developed enough insight into the processes of good writing to help children in the way outlined by the process modellers. Hood (1995, p. 49) suggested that many of the conferences he witnessed in schools were a ‘waste of time’ as they merely focused on surface features such as spelling. Furthermore, whilst the process model prompts ideas for incorporation into pieces of writing, it does not ensure that pupils develop their ideas nor does it provide assistance in identifying the elements of specific genres such as story writing. Bereiter and Scardamalia’s research revealed the potential value of teachers modelling writing and channelling children’s suggestions. Guided writing offers greater opportunities for young writers to make valuable connections between text, sentence and word level decisions and can help children shape and redraft texts with particular criteria in mind. So, ‘Can you tell me more about the dog in your story? Think of other words that you could use which mean fierce. Perhaps use a simile to describe what he looks or sounds like when he’s growling at the neighbours... may be the fact that he growls at strangers could prove useful later in your story?’

The concept of developing children’s writing by making available the assistance of a response partner in a conference situation, has a counterpart in the work of Vygotsky (1962), whose theory is that learning first occurs in a social setting and is then internalized. The emphasis on conferencing is supported by Vygotsky’s notion of the zone of proximal development (ZPD), which refers to the difference between what people achieve by themselves and what they can achieve with the assistance from a more skilled person. The assistance is represented by the concept of scaffolding, developed further by Bruner (1986). Scaffolding provides an intellectual framework, a facilitating context, which allows a task to be completed. Then, the scaffolding is gradually removed and the learner learns to cope on his/her own. In
the process and guided approaches, the questions and comments provide the scaffolding for the writer's ideas to be further developed and clarified. The writer should then be better able to develop and clarify a text without so much support.

4. Alternative software, web sites and academic systems

A few examples of commercial software packages, web sites and academic systems are discussed in this section to indicate the variety of approaches adopted by alternative writing tools. A considerable range of commercial software designed to help children with writing, is currently available for use in schools (www.r-e-m.co.uk). Commercial software tends to focus on a single aspect such as spelling, structure or motivation. The drill and practice programs (for example, 'Hooray for Spelling', Lander Software) use exciting graphics to create fun arcade style games which teach grammar skills as decontextualized exercises. Sentence building programs (for example, 'Clicker 4', Crick) are targeted at pupils in the very early stages of learning to write. Packages which intend to motivate children through the provision of pictures (for example, 'Story Book Weaver Deluxe', Europress) are similarly most useful with beginner writers, but are also beneficial for disaffected pupils, who need extra motivation to get started. Although word processing packages (such as 'Textease Primary', Softease), can make redrafting technically easier, no guidance for what should be revised is offered and no assistance is given with subject matter. Organizational tools (for example, 'Draft Builder', Don Johnston Software) aim to help pupils plan their stories effectively, but again no assistance is given with story content or making improvements. Applications supplying feedback, such as 'Writer's Helper for Windows', provide quantitative analyses of grammar features. These are geared towards older students who are more able to interpret the statistics and revise their texts as a consequence.

Many story writing sites exist on the web. They tend either to provide 'top tips' (for example, www.blackdog.net), pre-writing ideas such as a title, an opening paragraph or randomly generated suggestions for items which could be included in a story (for example, www.englishonline.co.uk/writers) or simply provide places to 'publish' stories (for example, www.edbydesign.com/storyteller). The sites focus on the end product rather than the process. They assume that children will be motivated and inspired to improve their writing by reading the available advice, etc. prior to writing, before submitting their own stories for publication.

The approaches of three previous prompting programs, focusing on issues pertinent to this study, are outlined here. The oldest, ELIZA (Weizenbaum, 1976) demonstrated how it was possible to create the illusion of a conversation with a computer. ELIZA appeared to understand the user by responding to written responses with stored phrases to specific key words. ELIZA was not developed as a tool to assist with writing.
CATCH (Daiute, 1985) presented prompting questions designed to encourage young writers to revise a text before, during and after it had been written. The system was simultaneously concerned with both revising and editing. At any time during or after composing a text, the writer could request a list of CATCH features. Some prompts, based on pattern analyses, offered help with editing, by identifying words or phrases that could be improved upon. For example, the detection of unnecessary, empty words such as ‘sort of’ and ‘well’ resulted in the prompt: ‘the highlighted words may not be necessary. Do you want to make changes?’ Others were designed to assist with revising the content of a text, e.g. ‘Does this paragraph include details that help the reader see, hear, feel or smell what you’re talking about?’ The decision for making any changes was therefore left to the writer. Daiute reported that the system was largely unsuccessful. The revising prompts overestimated the capabilities of young children: insufficient help was given by prompts such as ‘How can I make my characters seem more real?’ The editing prompts failed to highlight features, which when corrected, would lead to real improvements. Already proficient writers who used the system had better revising strategies of their own.

The Writing Partner (Zellermayer et al., 1991) aimed to assist young writers to shift towards writing in the knowledge transforming mode. The system guided adolescent writers through a forced process of planning which involved brainstorming, then used key words selected from the ideas generated to create a story outline. The system assisted the writers as they composed their texts by presenting questions dependent upon the key words identified earlier. In addition, plot ideas and suggestions for words and sentence constructions were made available. The tool did not aim to teach writing techniques or correct errors.

Although ELIZA was capable of holding a ‘turn taking’ conversation, based on key words typed by the user, the system did not demonstrate how to achieve a conversation which requires structure as is necessary for a tutorial concerning narrative writing. CATCH went some way towards shifting children towards the knowledge transforming approach, but the system with its emphasis on a combination of the processes of revision and editing offered little support for composition, such as demonstrating specific literary techniques, assistance with planning or brainstorming ideas. Furthermore, the linguistic features selected for editing were insufficient to result in improved writing. The Writing Partner, although successful with its targeted age range of adolescent writers, did not offer the kind of support pertinent to young children. An approach requiring the user to plan first, then write a story, is unlikely to be effective with young children, as they are constrained by the ‘what next?’ strategy, unable to visualize beyond the present sentence. Moreover, the system relied on the writer already possessing knowledge of narrative techniques and how to make improvements, and the ability to detect and correct grammar errors successfully. It is clear that young children will benefit most from a computer tool which guides the structure of the narrative whilst facilitating the process of revision. In addition, it needs to explain literary techniques and provide assistance with detecting and correcting significant grammar errors.
5. The HARRY writing system

5.1. The model underpinning HARRY

The model of the writing process underpinning HARRY is presented in Fig. 1. The HARRY writing system was designed to enable children to make a smooth transition from their usual knowledge telling ‘what next?’ approach towards the knowledge transforming strategy of mature writers. It is achieved by supporting children as they experience first-hand, the struggles integral to the mature writing process, whilst allowing children to continue using the approach they are familiar with. Constant movements are facilitated between the sub-processes of brainstorming, planning, composing, reviewing and revising, mirroring the idiosyncratic nature of the human mind. By alternating the different aspects of the process, HARRY reduces short-term memory overload giving children time to reflect. The model underpinning HARRY is the same as the model adopted by mature writers—with one exception. Editing, the process of improving grammar and correcting spelling, occurs after composition. Research such as Smith’s (1982) has shown that children need to concentrate in the first instance upon the content and coherence of their texts as preoccupation with superficial errors can interrupt and stifle the flow of ideas. Editing for these linguistic features is therefore delayed until the completion of the text.

The mature writing process is referred to by Flower and Hayes (1981) and the process modellers (e.g. Graves, 1983) as recursive: writers engaged in a process of, for example; brainstorming, composing, brainstorming, reviewing, composing, brainstorming, revising, etc. This implies that there is a regular pattern to the order. A more accurate label for the random nature of thought processes which takes place inside the head would seem to be idiosyncratic—peculiar to the individual. This is the

![Diagram of the idiosyncratic model underpinning HARRY during the writing process.](image-url)
definition adopted for the model of writing underlying HARRY. For mature writers much of the process is unconscious—they intuitively know how to write without necessarily knowing how they do it. The task for teachers in general, and the new computer system in particular, is to bring the various writing processes to the attention of children and help children combine them, thus producing an effective piece of writing. Like a human teacher, HARRY achieves this by combining a scaffolding of the revision process characteristic of mature writers with knowledge concerning literary techniques. HARRY delivers conversational prompts imparting expert-like knowledge specific to the genre of narrative writing in a conference situation when requested by children, before, during and after composition, combining the sub-processes of brainstorming, planning, composing and revising with transcribing. Separate editing feedback is provided, once the draft is completed.

5.2. System overview

The aim is to display a conference situation, where in the absence of a human tutor, children receive written assistance from a computer tutor before, during and after writing. At present, HARRY provides assistance with four story themes: pirates, space, a woodland adventure and an enchanted journey. HARRY organizes each story writing exercise into three stages. During stage one HARRY provides assistance with composition and revision. Then, during stage two, HARRY provides editing suggestions concerning grammar and style weaknesses detected in the text. Finally, the child corrects spelling and technical errors during stage three, using the spell checker available with Microsoft Word.

The composition of the story (stage one) is divided into several sections. Each section is displayed on a separate screen. The child writes a section of the story at a time in response to HARRY’s written suggestions. Whilst writing, the child brainstorms, reviews and revises plot ideas, vocabulary choice and sentence constructions in response to suggestions presented in pop-up boxes. The boxes are presented one at a time, but can be revisited any number of times and in any order. Once the child has ‘finished’ a section, she/he moves to the next by clicking on the ‘what next?’ button. Backward and forward movements between the sections are facilitated. The child can revisit earlier sections by clicking on the red back arrow at the bottom of each screen until the desired screen is in view, and return to the current screen by clicking on the red forward arrows, but it is necessary to click on the ‘what next?’ button to move onto a new section. Clicking on the ‘what next?’ button saves the writing in the current section before presenting the new section to be worked on. At any stage the child can temporarily stop writing with the ‘that’s it for now’ button. The writer is returned to the exact place the writing was stopped when she/he next comes to write. The screen designs for stage one are presented in Figs. 2 and 3.

After the last composing section has been completed, clicking on the ‘what next?’ button, takes the child into the second stage (editing). The background screen colour changes from blue to green to highlight the transition. The first section of text recorded during the composition stage is presented again. The child proof reads the section of text in response to HARRY’s editing suggestions, then clicks on the ‘what
three friends packed a flask of water and plenty of food and a rope, a knife, coathangers (for sliding down the rope) and extra clothes and a bow with lots and lots and lots of arrows in three rucksacks and they set off. They soon found the dark cave they entered very carefully and when they got to the stone it wasn't there Frank had been to it when they approached the pillar where the stone was they were an earthquake and they fell threw the ground.

Fig. 2. Screen design for stage one (blue background) with the ideas pop-up box open.

next? button to proofread the next section. Moving backwards to a previous section that has already been edited is not facilitated. The child proof reads each section of writing, using the 'what next?' button to move on to each of the sections in turn, in the order they were written. The screen design for the editing stage is presented in Fig. 4
Fig. 4. Screen design for stage two (green background) showing editing suggestions.

After proof reading the final section, the child clicks once more on the 'what next?' button. The whole story (without the prompts) then appears as a Microsoft Word document. Each section is presented as a separate paragraph. The child is expected to make use of the facilities available with Microsoft Word to correct spelling and technical errors and save the story before printing out.

5.3. Implementation

HARRY is implemented on a Windows NT web server, using ASP scripts to communicate with a series of Microsoft Access databases. All interaction with HARRY is via a standard web browser and is therefore platform independent. Several JavaScripts are embedded within the HTML files downloaded to the client's web browser. These are used to open and close additional dialogue boxes. A cookie is written to the client's computer, after the story theme has been selected, which contains the story strategy that will be followed and this is used to store where the child is during the story should she/he, decide to leave finishing the writing for another occasion. When the child returns to continue a story, the cookie is checked; this provides a track of where within the strategy the child is, and authentication of the child, but it requires that the child uses the same computer to write his/her story. The child's story is stored within an Access database on the web server. Separate databases are used for HARRY's first (composing) stage and the second (editing) stage. Thus, it was possible to separately store all the delivered composing prompts with the responses made during stage one, and all the delivered editing prompts with the responses made during stage two. The final version, in which spellings have been corrected, is saved as a Microsoft Word document.
5.4. The interface

At the start, there are two 'boxes' on the screen: one containing a prompt from HARRY, the other empty, waiting for a written response from the child. The child is first welcomed by HARRY and then given the opportunity to brainstorm and record initial ideas on a specific story theme selected by the child. Clicking on the 'what next?' button takes the child to the next screen where a suggestion about how to start the story is made. When the child has exhausted his/her ideas for the opening, she/he clicks on the 'what next?' button again to move on to the next section of the story. Each time the 'what next?' button is clicked on, a new screen appears with a guiding prompt from HARRY explaining the next section of the story and a reply box for the child to record a response. The guiding prompt is permanently displayed for the duration of the time spent on the section.

Three help prompts—help with ideas, sentence help and word help are available to the child in addition to each guiding prompt. These subsidiary prompts are displayed separately in pop-up boxes when requested by the child—the child is expected to alternate between the different boxes. A fourth check prompt reminds the child of the focus of the guiding prompt. Prompts accessed by these buttons supply suggestions designed to encourage children to review and revise their texts before, during and after they write. The help boxes can be viewed in any order and revisited any number of times. In addition, the child is able to move backwards and forwards between the current and previous sections using arrow keys, either to reread a previous section or to make changes to the text written earlier. Previous help boxes can also be revisited.

After the last section has been completed, the 'what next?' button takes the writer to the editing section, the stage when HARRY identifies places where a text can be improved grammatically. The original guiding prompt and the child's response is displayed for each section in turn. Suggestions for editing are listed in a third box in the same position as the help boxes for the composing screen, although the editing suggestions occur as a list in a single box, rather than separate boxes. Children are required to proof read their own text, locating errors and making changes in response to the suggestions. When the child has finished proof reading the entire story, section by section, the 'what next?' button transfers the story into Microsoft Word, where the child corrects his/her own spelling errors using the spell checker before printing out the final polished draft.

Children are thus systematically led through the composing process of mature writers, yet also develop their narrative using the 'what next' approach. Conversational prompts presented before, during and after they write, encourage them to continually revise their writing. The prompts challenge children to consider alternative ideas and rethink sentence constructions and vocabulary in order to convey their intended message more accurately. HARRY thus expects to change the way children approach the task of writing. Children are guided through the process of juggling the many decisions necessary when writing a story—from what word to use next and how to phrase the next sentence, to developing the overall plot.
5.4.1. The composing prompts (stage one)

Several hundred conversational style prompts designed to encourage children to include specific narrative writing techniques are stored in Microsoft Access databases. The guiding prompts, each supported by the three help suggestions and the check prompt (created as additional fields in the database) are grouped in the following sections: welcome, start, setting, character, action, complication, key word and last. Each category contains 4–15 guiding prompts plus the subsidiary help and check prompts (Appendix A contains examples of the prompts available for a story which has an enchanted journey as a theme).

A strategy table enables the required sections to be listed in a predetermined order, ensuring that all the elements essential for a story are included. As a child proceeds from one section to the next, one guiding prompt is selected at random from within each section listed in the strategy. Prompts are programmed not to be repeated within one story. It is possible to vary the frameworks for different story themes because the strategy is flexible. For example for the space story the sections are ordered: Start, Setting, Key, Character, Action, Key, Complication, Last, whereas the journey story theme has the order: Start, Character, Setting, Action, Key, Complication, Action, Key, Last. The ability to vary the order ensures a logical progression is achieved for each story, based on knowledge of the content of the prompts. The benefit of programming randomly selected prompts from within each category is that different suggestions are presented to each child, as they would be with a human tutor. Ordering the sections within the strategy table ensures the resultant story is logically structured into paragraphs, each containing a theme and that all elements of a story (an opening, setting and character descriptions, a series of events including a complication, a resolution and ending) are included.

The purposes of the sections within the strategy are:

Welcome: To introduce the story theme and initiate thinking about the topic. Example prompt: I'm sure you will enjoy writing a pirate story. Make a list of useful words in the box below.

Start: To suggest one of three main ways of opening a story (action, dialogue, description), thereby creating an interesting start to the story. Example prompt: Try starting your story with one of the astronauts talking.

Setting: To evoke the atmosphere and create the background to a story by providing a detailed description of the setting. Example prompt: Describe what it is like in space. Make me feel as if I am really there. Think about what you can see looking far out into space.

Character: To consider the personality of the main characters and how it is shown in their speech and actions, etc. Example prompt: Think about what the travellers in your story are like. Try to show this in the things that they do and say.

Action: To supply details of the main events. Example prompt: The pirates could do a spot of fishing and find something else instead!

Complication: To provide an unexpected turn in events, a twist in the tale or a problem to be solved. Example prompt: The weather could change. This could cause problems.
Last: To state what happens as a result of the events including the complication. Example prompt: You’d better start bringing your story to an end. You may need to sort a few things out first.

Key: To encourage children to expand upon ideas they have already chosen to write about, for example: Tell me more about the rocket. Key prompts are based upon words used by a child in a preceding section. These Key word prompts suggest supplying more descriptive setting or character details, or additional events, including complicating actions. A synonym table containing key words of similar meaning, including common spelling mistakes made by children (for example: spacecraft, spaceship, roket and rocket) increases the chance of a writer writing a particular word that supports a key word prompt. The key word prompts, by following the lead of the child, prevent the system from becoming merely an electronic worksheet with a completely predetermined framework, although with random prompts. The key words (such as rocket, magician, dragon, alien, wolves, town, mountain, etc.) are suggested within other prompts to increase the chance of key words appearing in a text, although it is anticipated that children will incorporate key words without following the specific suggestions. Key word prompts are targeted in the strategy to occur after the section suggesting the key word.

Linked to each guiding prompt are four additional help categories:

Ideas help suggests details or events that could be included when responding to the guiding prompt, to help inform and entertain the reader. So, for a space story, the guiding prompt might suggest that the child writes a description of outer space. The child can request an idea for how to do this and receive the prompt: Think about the darkness, the bright lights, the silence, the stillness and the weightlessness.

Sentence help suggestions encourage children to vary sentence length and style. For example: Try asking a question next, or two or three questions in a row, like this: “What was that? Did you see it?” Alternatively, it might be suggested that the writer uses dialogue, similes and metaphors, or to start sentences in different ways, such as with a verb and to use a variety of connectives, choosing from examples provided, thus encouraging children towards writing complex sentences and to interweave dialogue with descriptions, etc.

Word help encourages the careful selection of appropriate and sophisticated vocabulary. A list of alternative words relevant to the theme of each paragraph is provided. For example, word help for a paragraph suggesting a description of space might include the words: stars blazing, burned brightly, dazzling, flashing, flickered, glinted, glistening, sparkling, twinkling, pitch black, unending darkness, like soft velvet. Techniques such as grouping words alliteratively are encouraged.

The check prompt reminds the writer to ensure that the message of each section is clear and interesting for the reader. For example, when the guiding prompt suggests writing a setting description, HARRY might ask: Have you used at least three adjectives to describe the scene? How about a simile?

HARRY thus encourages children to review and revise a text before, during and after transcription occurs—the composing questions are simultaneously revising questions. Many new ‘drafts’ are made during the composing process. Within each
section, it is anticipated that vocabulary will be reviewed, sentences will be reworked, new ideas will be incorporated and plans will be amended.

5.4.2. The editing prompts (stage two)

When the child has completed the composing stage, working through each section in turn in response to HARRY's prompts, clicking on the 'what next?' button takes the child to the editing stage. The editing process is separated into two aspects: grammar (including style) and spelling. First, HARRY provides feedback concerning grammar and style weaknesses, then after the final section, the 'what next?' button transfers the whole story (without the prompts) into Microsoft Word, where the child can correct technical errors and spellings with the aid of the spell checker.

When editing a story, the child is expected to look at each section of the story in turn, in the order that the sections were written in. HARRY identifies places where the text can be improved grammatically and stylistically, and suggests ways of making improvements. It is expected that the child will proof read and make appropriate amendments to the text in the light of the advice. Three aspects of writing are commented upon at the editing stage: punctuation, vocabulary and sentence construction. Suggestions drawn from these categories are then listed, in order to help children identify specific places where improvements can be made and how these could be effectively achieved. The children are expected to respond to each prompt on the list in turn. As with the composing stage, the editing prompts are conversational in style.

**Punctuation**

*Marking the end of sentences.* HARRY indicates places in each section where full stops may have been omitted.

1. If more than 30 words are detected without a full stop, then the child is prompted to 'Check the long sentence beginning [...]. It may need breaking up into smaller sentences'. The child is expected to locate the 'long sentence', then find places where full stops could be correctly positioned. If a full stop, exclamation or question mark is missing at the end of the section, the prompt 'You have forgotten the full stop at the end of this paragraph' will be delivered.

2. Questions demarcated with full stops rather than question marks are identified. Sentences beginning with question words such as: *Who, Where, What*, etc. which end with a full stop are detected, resulting in the prompt: 'Do you need a question mark at the end of the question beginning [Where]?'

3. Minor sentences (one or two words) punctuated with full stops are highlighted, so that they can be replaced with exclamation marks, for example: 'The word [Hello] needs an exclamation mark after it!'

*Marking clause boundaries.* HARRY highlights places where commas might be used within sentences to separate clauses.

1. The coordinating connectives *but, so, yet* and *then* used within sentences (indicating compound sentences requiring a comma before the connective) are
detected. For example, HARRY suggests ‘You may need a comma before the word [but]’.

2. Sentences that begin with a single-word adverb (ending ly) such as ‘Suddenly’, which require a comma after the adverb are detected. HARRY also checks for other individual adverbs like: Also, Later, Next, First and Last; interjections like: Yes, No, Yeah, Well, Ah and Oh; and connectives like: Yet, Also and So, used at the start of a sentence. If an adverb, an interjection or a connective is detected without a comma present at the start of a sentence, HARRY suggests ‘You may need a comma after the word [Luckily]’, etc.

3. HARRY detects long complex sentences where commas may have been omitted, by highlighting places where between 12 and 30 words are written without the presence of a comma, full stop, brackets or comma like words (and, because, or, that). HARRY then suggests ‘Check the sentence beginning […] It may need commas. It is anticipated that having been alerted to the error, the child will find appropriate places to position commas.

Vocabulary
HARRY checks for simple and frequently repeated words.

1. The simple words (One day, nice, big, said, went, walked, got, get, saw, ran, going, thing) are detected. Alternative more sophisticated synonyms are offered, or the suggestion is made for the writer to think of an alternative for his/herself. For instance, HARRY suggests ‘You have used the word [nice]. You could use a better word like [beautiful, delicious, enjoyable, interesting or exciting]’, or ‘You have used the word [get]. Try a better word or words’.

2. If the basic connectives also, so, then, but, because are repeatedly used in the whole text (more than a threshold of 0.8% of total words, a figure which was determined empirically) HARRY suggests: ‘You use the word [so] a lot in your writing. Do you really need it?’ etc.

3. If key words related to the story theme (journey, pirates, wood, space) are frequently repeated (more than a threshold of 0.8% of total words, a figure which was determined empirically) HARRY suggests for example: ‘You use the word [pirates] a lot in your writing. Try another word, or words, like shipmates, gang, bloodthirsty crew, dastardly bunch’.

Sentence construction

1. HARRY detects where the basic connectives and, but, because, then and so have been used twice or more in a sentence, suggesting: ‘Try not to use the word [and] more than once in a sentence. You could replace one [and] with a comma, or a full stop followed by another word that fits’.

2. Sentences that start with the same word three or more times in one section, are detected and then commented upon: ‘You have used the word […] to start three or more sentences. Can you think of a different way to start these sentences?’
3. HARRY detects a sequence of three or more simple sentences (where each sentence is between 8 and 12 words long), commenting: 'You have several short sentences in a row. For a better effect, link two of them together with a word like: if, with, when, how, except, while, although'.

4. HARRY detects a sequence of three or more consecutive long sentences (between 14 and 20 words) and comments: 'You have several long sentences in a row. Try breaking one of them into shorter sentences to vary them'.

To avoid unnecessary repetition of the editing prompts, if a child writes more than one sentence in a section containing several and’s, uses the same words requiring a comma or a specific simple word which would be improved by substituting an alternative synonym several times, etc., the prompts in these cases are presented only once. Although the prompts have been presented in this section according to the category they relate to, in practice, the prompts are programmed to be delivered in the order of first prompts requiring the child to identify long sections of text, then prompts requiring the child to scan the text in the search for individual words, as the latter was thought to be less tiring to do than the former. The following list of prompts indicates the order, number and variety of prompts presented to help a child edit one section of text, although the number and variety of prompts varies according to the length of the text and kind of weaknesses evident within it (the complete range of editing prompts is presented in Appendix B).

- Check the long sentence that begins ['First we'll show']. It may need breaking into shorter sentences with full stops.
- Try not to use the word [and] more than once in a sentence. You could replace one [and] with a comma, or a full stop followed by another word which fits.
- Do you need a question mark at the end of the question beginning [How]?
- You may need a comma after the word [Yes].
- You have used the word [said], try a better word like: suggested, whispered, joked, promised, interrupted, muttered or yelled.

6. Evaluation of the system

Three case studies are presented to indicate the effects of the HARRY writing system upon children's writing performance and behaviour. The children involved in the study were randomly selected from a mixed ability class of 8/9 year olds, attending a co-educational, state-funded primary school. Each child wrote two stories on the same theme: a control story (written with a cut-down version of the system presenting a prompt suggesting a story theme and an accompanying reply box, but no further assistance) and a story written with the full assistance of HARRY. The effects of the system upon the children’s writing performance and behaviour are analysed through a detailed comparison of the stories they produced and observations made of the children as they were writing. The findings of a control
group of children from the same class, who just used the cut-down version of HARRY to write two stories on the same theme, are also presented.

The data was collected over 5 weeks. Each child was permitted by the school to use HARRY for two literacy lessons a week, but they were allowed as many lessons as they needed to complete each story. The functions of the full HARRY system were demonstrated to the children before they started writing their assisted story. They were instructed to always consult all of the help buttons when embarking on a new section, leaving open the help option they considered most useful. It was explained that they could, and should, consult the other help boxes again, whenever they wished.

The control and HARRY-assisted stories are compared along two dimensions: organization (including literary techniques) and grammar (including style). Descriptive qualitative assessments are made of the following organizational features: story structure including paragraphing, the tone of the story, the story opening, the presence of a problem or twist in the tale, characterization, setting descriptions, use of dialogue, literary devices such as alliteration, patterning and similes and the story ending.

A specially designed computer utility tool—CHECK TEXT—is used to provide statistical data concerning grammar and style features. A previous study in which statistical analyses were performed upon a set of sample stories representing the range of ability levels associated with 11 year olds (Holdich et al., 2002) has demonstrated that CHECK TEXT successfully distinguishes strengths and weaknesses in 12 aspects of children's written grammar and style. CHECK TEXT is used to provide detailed quantitative analyses for the control stories and for each of the three stages of the HARRY-assisted stories. CHECK TEXT provides statistical analyses of 12 features covering story length, punctuation (full stops and comma use), sentence construction (use of basic connectives and simple sentence starters) and vocabulary (variety and sophistication). The 12 features are as follows.

1. The total length of the story in words (as a measure of the amount of detail included).
2. The percentage of different words used in the first 100 words (as an indication of the extent of a child's vocabulary resources).
3. The number of and's used as a percentage of the total words (as an indication of the frequency of very basic compound sentence constructions).
4. The basic connectives but, so, then, because used as a percentage of the total words (as an indication of the frequency of basic compound sentence constructions).
5. The percentage of sentences started simply with a pronoun or the definite article (as an indication of the frequency of basic sentence constructions).
6. Average words per sentence (as an indication of the variety of sentence lengths and types).
7. Number of different words with more than five characters as a percentage of total words (as an indication of sophisticated vocabulary).
8. Number of adverbs as a percentage of total words (as an indication of sophisticated vocabulary).
9. Common verbs used (said, went, got, get, was, were) as a percentage of total number of words (as an indication of simple vocabulary).
10. Total common words (all common verbs and basic connectives identified above) as a percentage of total number of words (as an indication of simple vocabulary).
11. Mean words per sentence (as an indication of the correct use of full stops).
12. Commas used as a percentage of mean sentence length, excluding commas used in lists (as an indication of the presence of clauses within complex sentences demarcated by commas).

As the significance of the statistics calculated for the stories written by the children involved in this study is not obvious without reference to the statistics calculated for the original sample stories (presented in Holdich et al., 2002) three assessment categories were determined—poor, fair and good. The assessment boundaries are presented in Table 1. The statistics together with the poor, fair and good reports, form the basis of the grammar and style comparisons for the stories reported in this paper. The statistical data are illustrated by examples of specific words and phrases.

The children were also observed as they performed the writing tasks, in order to gain a fuller understanding of HARRY’s effects upon the children’s writing behaviour and performance. Field notes were recorded noting how the children approached the writing tasks, and observable reactions they made in response to HARRY’s prompts whilst they were writing.

6.1. Control group

6.1.1. Sarah

Sarah wrote both stories without making any changes, apart from spellings. Both of Sarah’s stories are written in a similar entertaining style. They feature similar
events—emergency messages requesting assistance in outer space are delivered to a computer screen. Both stories follow a logical beginning-middle-end structure. Paragraphing is used to group ideas together. The stories start in a similar ‘matter of fact’ way:

**First story:** I was in a bike shop, my mum and the person behind the counter were helping my little brother, Johnny choose a bike for his birthday.

**Second story:** Hello, my name is squeaky, I am a robot from Caneyned city on the planet Titon.

The stories similarly end with a succinct final comment:

**First story:** ... Johnny wheeling out his bike with a grin on his face!

**Second story:** Never mind, I might get another chance another day!

Both stories are written in the first person. Some dialogue is used in the first story, but not the second. Neither story makes use of literary devices such as similes and metaphors, nor provides setting or character descriptions.

The CHECK TEXT scores for both stories are presented in Table 2. The ‘good’ reports are highlighted.

CHECK TEXT recorded similar scores for each story for three features: mean sentence length (first story = 11.2 words, second story = 12.1 words) common verbs (first story = 4.7%, second story = 4.4%) and sentence to comma ratio (first story = 0.7, second story = 0.9). The second story achieved better scores for two features: variety of words (first story = 60%, second story = 67%) and simple sentence starters (first story = 52.6%, second story = 40%). Worse scores were recorded for the second story for five features: use of the connective and (first story = 1.9%, second story = 3.3%), common connectives (first story = 0.9%, second
story = 1.7%), adverbs (first story = 0.9%, second story = 0%), total number of words (first story = 213 words, second story = 181 words) and common words (first story = 7.5%, second story = 9.4%).

There is little difference in quality between the organization of both stories. Though structured and entertaining, both stories lack detail and literary techniques. CHECK TEXT recorded two less 'good' reports for her second than her first story. The analysis revealed the same stylistic weaknesses in both Sarah's stories—lack of variety of words, lack of adverbs and frequently starting sentences in a similar way. Sarah's strength in both stories is with sentence construction—she writes using a mixture of complex and compound sentences which she punctuates accurately.

6.1.2. Laura

Laura wrote steadily without rereading her work. Both of Laura's stories are long, containing an organized series of interesting, imaginative and unpredictable (although different) events. The stories progress logically. Ideas are grouped together in paragraphs. Dialogue is interwoven with a description of events. The setting and characters are indicated. Both stories feature some interesting phrases, for example:

First story: you can count on me not to be nasty, the lift was down in a matter of seconds, the craze cracker was gleaming in the morning sunshine, they exchanged their goodbyes.

Second story: a whizzing flying saucer flew past their ears, for once in their life they believed him, yellow stars wound their way around a path.

Neither story makes use of literary devices such as similes and metaphors to enhance descriptions, although adjectives are used effectively in both, for example:

First story: Big friendly alien, super trooper kit, a bush that stood very tall.

Second story: glistening spiky shape, a strange forest, a rather thin tall man.

The CHECK TEXT scores for both stories are presented in Table 3. The 'good' reports are highlighted.

CHECK TEXT recorded similar scores for Laura's first and second story for three features: simple sentence starters (first story = 32%, second story = 28.1%), average sentence length (first story = 11.9 words, second story = 9.2 words) and common words (first story = 10.1%, second story = 9.9%). The second story scored better for three features: use of the connective and (first story = 4%, second story = 2.1%), words > 5 letters (first story = 10.1%, second story = 14.1%) and adverbs (first story = 0.3%, second story = 1.3%). The second story scored worse for four features: total number of words (first story = 593 words, second story = 523 words), variety of words (first story = 68%, second story = 51%), common verbs (first story = 4.6%, second story = 5.7%) and sentence to comma ratio (first story = 4, second story = ∞).

There is little difference in quality between either the organization or grammar elements of Laura's stories. Both stories are detailed and well structured. CHECK TEXT awarded both stories four 'good' reports. Laura writes short, though punchy
Table 3
CHECK TEXT scores for Laura’s space stories

<table>
<thead>
<tr>
<th>Feature</th>
<th>First story</th>
<th></th>
<th>Second story</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Score</td>
<td>Report</td>
<td>Score</td>
<td>report</td>
</tr>
<tr>
<td>Total number of words</td>
<td>593</td>
<td>Good</td>
<td>523</td>
<td>Good</td>
</tr>
<tr>
<td>Variety of words in first 100</td>
<td>68%</td>
<td>Good</td>
<td>51%</td>
<td>Poor</td>
</tr>
<tr>
<td>Ands used to total words</td>
<td>4%</td>
<td>Fair</td>
<td>2.1%</td>
<td>Good</td>
</tr>
<tr>
<td>Common connectives</td>
<td>1.5%</td>
<td>Fair</td>
<td>2.1%</td>
<td>Poor</td>
</tr>
<tr>
<td>Simple sentence starters</td>
<td>32%</td>
<td>Good</td>
<td>28.1%</td>
<td>Good</td>
</tr>
<tr>
<td>Average sentence length in words</td>
<td>11.9</td>
<td>Fair</td>
<td>9.2</td>
<td>Fair</td>
</tr>
<tr>
<td>Number of words over five letters</td>
<td>10.1%</td>
<td>Poor</td>
<td>14.1%</td>
<td>Fair</td>
</tr>
<tr>
<td>Common verbs used to total words</td>
<td>4.6%</td>
<td>Fair</td>
<td>5.7%</td>
<td>Poor</td>
</tr>
<tr>
<td>Adverbs used to total words</td>
<td>0.3%</td>
<td>Poor</td>
<td>1.3%</td>
<td>Fair</td>
</tr>
<tr>
<td>Common words to total words</td>
<td>10.1%</td>
<td>Fair</td>
<td>9.9%</td>
<td>Fair</td>
</tr>
<tr>
<td>Mean words per sentence</td>
<td>11.9</td>
<td>Good</td>
<td>9.2</td>
<td>Good</td>
</tr>
<tr>
<td>Sentence to comma ratio</td>
<td>4</td>
<td>Poor</td>
<td>∞</td>
<td>Poor</td>
</tr>
</tbody>
</table>

sentences, accurately demarcated by full stops, but not commas. Whilst some of her vocabulary is sophisticated and adventurous, the majority of the words she uses are basic.

The story pairs written by the control group of children were strikingly consistent in quality. Both pairs of stories display similar organization and used similar literary techniques. The CHECK TEXT scores reveal some variation in each story pair between certain individual grammar and style elements, but overall, there is little difference between the pairs of stories. Although the sample size of the control group is small, it suggests that children are unlikely to improve at story writing without receiving assistance. This is consistent with the research outlined earlier, such as Graves (1983) and Bereiter and Scardamalia (1987).

6.2. The study group

6.2.1. Sophie

Sophie chose the woodland story theme. Both the control and the HARRY-assisted stories are written in the style of a diary, but feature very different events. Sophie’s control story demonstrates her particular strengths: she presents a series of events including a twist in the tale: four children go to stay in a cottage with their mother—except the ‘mother’ is a witch disguised as their mother. The children are suspicious and discover her true identity by overhearing a phone conversation. They destroy the witch with a bucket of water. The story ends with the children safely back at home. Sophie attempts to build up suspense, uses simple adjectives to provide setting details, and indicates character’s personalities, as this excerpt shows:

She has pointed toes and holds her nose when we are around...I never trusted her I told them to be careful and not to trust anyone esspeslie (especially) her and those dogs.
The story has several weaknesses: it lacks an effective opening, the events of the story are not fully developed, nor presented in paragraphs, descriptions are composed of simple adjectives and not enhanced by techniques such as grouping adjectives into phrases or using similes (e.g. ‘there’s cobweb’s hanging from the ceiling...there’s hard beds’), and the ending is rushed. There is little dialogue.

The HARRY-assisted story follows a clear plan including a double ‘twist’ (first wolves start to attack, then a cave man appears). The ideas are fully developed in paragraphs. The story starts with the main characters introducing themselves directly to the reader and explaining that they are about to go to a holiday house. Characterization is made clear, for example: Daniel is ‘bossy and naughty...he always wears his baseball cap backwards...and a jumper tied round his waist’. Sophie uses original similes and a metaphor, for example ‘we’re as excited as a birthday party’, and ‘in their (the wolves) eyes there was a sharp bit of fire’. Adjectives are grouped together for effect using alliteration, for example ‘dark, damp, dank and dreary’. Suspense is deliberately created—two incidents are built up—the entry of the wolves, and subsequently, the appearance of a strange creature. Pacing is achieved by varying sentence constructions—long descriptive sentences are interspersed with short simple and minor sentences, and by ending a paragraph on a cliff hanger, for example:

Something moved behind me... The wolves seemed to appear from THIN AIR, from behind every tree their eyes glinting there was a rush of wind and the glinting vanished... They pounced! Then gave chase but...


There is a detailed resolution: a cave man frightens the wolves away, then shows the children his home. This section contains much dialogue, although speech marks are not used. The ending brings the story round ‘full circle’: the children’s parents have decided to buy the holiday home and the children are pleased that they can continue to see their new friend.

Some weaknesses are apparent with the HARRY-assisted story: the story starts in an uninteresting way and ends rather abruptly, and Sophie’s attempts at using adventurous phrases are not always successful, for example:

I called down the hole Daniel it flooded down and out in a few short seconds, it filled the forest with life cries of birds the rustling of the wind.

Nevertheless, the organization of the HARRY-assisted story is better than the control. The ideas contained in the control story are difficult to follow; the HARRY-assisted story is an exciting adventure, which is mostly well paced and clearly explained.

The CHECK TEXT scores for both stories (including each stage) are presented in Table 4. The ‘good’ reports for the control story and final stage of the HARRY-assisted story are highlighted.

The scores for Sophie’s control story reveal a strength in vocabulary—both variety and sophistication—(variety = 76%, words > 5 letters = 16%, adverbs = 0.8%, common verbs = 4.3%, common words = 8.5%) for example: ‘surrounded, decided, insisted, normally, destroyed, trusted’. Her story shows evidence of the beginnings of
Table 4
CHECK TEXT scores and reports for Sophie’s stories

<table>
<thead>
<tr>
<th>Feature</th>
<th>Control</th>
<th>First stage</th>
<th>Second stage</th>
<th>Third stage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Score</td>
<td>Report</td>
<td>Score</td>
<td>Report</td>
</tr>
<tr>
<td>Total number of words</td>
<td>376</td>
<td>Fair</td>
<td>658</td>
<td>Good</td>
</tr>
<tr>
<td>Variety of words in first 100</td>
<td>76%</td>
<td>Good</td>
<td>79%</td>
<td>Good</td>
</tr>
<tr>
<td>Ands used to total words</td>
<td>2.4%</td>
<td>Good</td>
<td>3.5%</td>
<td>Fair</td>
</tr>
<tr>
<td>Common connectives</td>
<td>1.9%</td>
<td>Fair</td>
<td>1.7%</td>
<td>Fair</td>
</tr>
<tr>
<td>Simple sentence starters</td>
<td>18.2%</td>
<td>Good</td>
<td>22.2%</td>
<td>Good</td>
</tr>
<tr>
<td>Average sentence length in words</td>
<td>17.1</td>
<td>Poor</td>
<td>36.6</td>
<td>Poor</td>
</tr>
<tr>
<td>Number of words over five letters</td>
<td>16%</td>
<td>Fair</td>
<td>18.1%</td>
<td>Good</td>
</tr>
<tr>
<td>Common verbs used to total words</td>
<td>4.3%</td>
<td>Fair</td>
<td>4.7%</td>
<td>Fair</td>
</tr>
<tr>
<td>Adverbs used to total words</td>
<td>0.8%</td>
<td>Fair</td>
<td>1.7%</td>
<td>Good</td>
</tr>
<tr>
<td>Common words to total words</td>
<td>8.5%</td>
<td>Fair</td>
<td>9.9%</td>
<td>Fair</td>
</tr>
<tr>
<td>Mean words per sentence</td>
<td>17.1</td>
<td>Fair</td>
<td>36.6</td>
<td>Poor</td>
</tr>
<tr>
<td>Sentence to comma ratio</td>
<td>2.8</td>
<td>Poor</td>
<td>7.3</td>
<td>Poor</td>
</tr>
</tbody>
</table>

mature sentence constructions (simple sentence starters = 18.2%, total basic connectives = 4.3%, of which 2.4% = the connective and). The story is reasonably detailed (376 words). CHECK TEXT demonstrates Sophie’s weakness is in punctuation (average sentence length = 17.1 words, sentence to comma ratio = 2.8). By inserting full stops and commas correctly in her text, her average sentence length is reduced to 8.2 words and sentence to comma ratio is improved to 0.7. Whilst the presence of commas indicates some complex sentences (e.g. ‘Not for me, I was too old’), the very low number of words per sentence indicates that Sophie writes using mostly simple sentences, although she varies the way she starts them (simple sentence starters = 10.9%).

CHECK TEXT awarded Sophie’s HARRY-assisted story five more good reports than her control story. The HARRY-assisted story is more detailed (663 words). Improvements have been made with vocabulary choice (variety = 78%, words > 5 letters = 18.3%, common verbs = 4.1%, common words = 8.3%, adverbs = 1.8%). Many sophisticated words are used such as ‘interrupted, approached, gigantic, hurtled, muttered, whispered, bravely, proudly’. More, but not all sentences are correctly punctuated (mean sentence length = 16.2, sentence to comma ratio = 1.1). There is evidence of more deliberate control with sentence structure—using simple and minor sentence structures for dramatic effect, for example ‘We came to a dead end... He understood us... They pounced’. Complex sentences containing several clauses are constructed, for example, ‘Daniel was so excited that he crouched down and vanished down the hole before you could say stiganopithicus’. A persistent weakness with punctuation is evident. There are places where full stops (including question marks) and commas have been omitted.

Sophie demonstrated an ability to organize a series of events with the control story. With HARRY’s assistance, Sophie organized her ideas into paragraphs, each
containing a clear theme. For example, in response to a Key word prompt, Sophie wrote an entire paragraph describing how the wolves appeared. Many instances of cognitive conflict were evident in her writing. For example, HARRY’s guiding action prompt suggested that the children in her story could discover a secret tunnel, a secret door, or a secret staircase in the wood. Sophie responded by writing about a hole in the ground which was home to a pack of wolves. Later, the guiding complication prompt suggested that someone could get injured or lost. The sentence help suggested that she could build up to the event by describing someone glimpsing or hearing something. Sophie responded by building up the entry of a strange creature, who saved the children from being attacked by the wolves:

a strange creature pocked (poked) his head out of a rather small cave slowly a hand then another hand. A shaggy large round fat head came out. The weird creature…was 10 feet high (high)

Similarly, HARRY’s suggestion for suitable words to describe the wolves (scary, shaggy, fierce, mean, drooling saliva) caused Sophie to describe the wolves as ‘wet drooling zombies’.

When writing the control story, Sophie demonstrated that she was reflecting about the appearance of her text—she made several changes to the layout and changed some words from lower case into capital letters. When composing the story with HARRY’s assistance she made changes to the content of her text—she visibly changed her mind about her choice of words. For example, HARRY suggested that Sophie should describe the wood. Sophie read the word help which listed the words ‘eerie, scary and spooky’, returned to a previous word help box which suggested the words ‘dark, damp, cold and wet’, then spent several minutes arranging words into an order she liked, finally producing the phrase ‘it’s dark, damp, dank and dreary’. Sophie returned four times to the welcome section to add details to her original plan related to how the story was developing, including: the personality traits of her main characters, discovering wolves in the wood, and how a cave man protects the children.

The first stage (the composition process), had a noticeably negative effect upon Sophie’s punctuation—a weakness already detected within her control story. Her CHECK TEXT score after the first stage for mean sentence length (36.6 words) was twice that of the control story, indicating poorer use of full stops and she used proportionally fewer commas to demarcate clauses than in the control story (sentence to comma ratio = 7.3 compared to 2.8 in the control). Reflecting about plot ideas and vocabulary seemed to have caused her to frequently forget to punctuate her sentences. However, evidence of worse writing is a noted sign of rapid cognitive development (Karmiloff-Smith, 1992). By making editing suggestions at the second stage, HARRY helped Sophie improve her punctuation to a level similar to that demonstrated in the control story, but did not help her improve her punctuation sufficiently to achieve a ‘good’ report, as many sentences remained poorly punctuated. Although HARRY alerted Sophie to places where full stops and commas were needed in her story, she did not find all the places requiring them. For
instance, she was directed to the following section of text requiring full stops (spelling was uncorrected at this stage):

The weird creature came out of the cave he was 10 feet hight he let out an oooohhhhhhhhhhhhh iimmediateIy the wolves fled with feir.

Sophie positioned one full stop correctly after the word cave, and capitalized the first letter of the following word, but she did not notice the other two places where full stops were required.

6.2.2. Rachael

Rachael chose the pirate story theme. The control story indicates that Rachael can write lively, entertaining stories. The story, though short, contains many successful features—paragraphs, an interesting opening explaining the theme of the story (a problem with the crew), an introduction to the characters (all of whom have specific jobs on board ship), and an event (the one female pirate—Betsy—makes the rest of the crew wait upon her) and a satisfying ending. The moral of her story is that the captain is reminded through Betsy’s actions that she is a lady. Her action ensures that he remembers to call his crew ‘ladies and gents’ and not to refer to them all as ‘lads’.

Rachael demonstrates that she is aware of the humorous, colloquial style pirate stories are usually written in when she writes in the introduction:

Welcome aboard the spicy island...I shall begin if you don’t mind.

She ends her story in the same happy-go-lucky manner, bringing the story around ‘full circle’:

They were the good old days when all I did was order people to do things and lye (lie) in the sun. Bye from the spicy island.

She devises appropriate names for the characters, such as ‘Fatso’ who is the ship’s cook and ‘Wolly’ (presumably meaning Wally) who is the ship’s entertainer. A light-hearted style is used throughout, such as:

She pulled out a chair and watched the sea splashing at the sides of the ship. She called down to Fatso a strawberry cocktail please.

Patterning is used for effect:

There was a rumbling and a tumbling they all knew what it was.

Although the control story contains a clear beginning, middle and end, with some characterization and description of the setting, the story lacks detail and events.

The HARRY-assisted story is a more effective story than the control. It contains many more features expected of pirate stories—traditional phrases, more humorous character sketches and details of the ship, etc. The opening dialogue is chosen
carefully to set the scene and the tone of the story. The reader's interest is immediately engaged by the ironical comment:

"There she is, she's beautiful" the captain sighed. Captain Paul of the good ship GOLDEN GIRL was looking at his rusty dirty ship and calling it beautiful!

The beginning-middle-end-structure evident in the control story was improved upon in the HARRY-assisted story. The story recounts a series of events including a twist in the tale and a resolution, ending with an effective, succinct, final comment:

"Well cheers to our new lives," exclaimed the captain. In a few weeks time they were living in gold.

Typical sayings are incorporated, such as 'Shiver me timbers', as well as some with slight variations, such as 'Yo ho ho and a bottle of grog'. The story contains many of the elements expected of a pirate adventure. There is a crew of rather stupid pirates (though some are 'brainier' than others), huge waves, desert islands with palm trees, swaying hammocks, sharks, much panic on board ship and most important of all, 'TREASURE!'

The story is well structured and fast moving. Paragraphing is used to group ideas together. Dialogue is regularly interspersed between descriptions of the events. Pacing is achieved by building up slowly to key events, such as the events leading up to the pirates falling overboard:

What they didn't know was that there was a big wave coming. Then the wave came to the sides of the ship. It had to be a very large wave to reach all the way to the top of the ship because it was a very tall ship. Hammocks swayed and knocked the two lazy twins into the sea.

Details of the setting are mentioned at intervals during the story. The 'very tall' ship is 'rusty' and 'dirty', with a 'crossbones' flag. On deck there are 'torn hammocks', and out at sea there are 'little bits of sand where the palm trees grew tall'. Characterization is clear. There are 'lazy pirates' who spend their time 'lying in torn up hammocks'. These pirates get what they deserve, for they are washed overboard by a huge wave. This starts an argument between the 'lazy pirates' and the 'brainy pirates'. The 'brainy pirates' blame the fact that the ship 'hit something and disappeared into thin air' on the lazy behaviour of these pirates, commenting:

"It is all your fault you two, if you weren't so lazy you wouldn't have fell over board" argued the working brothers'

Later, when a shark attacks, the 'lazy pirates' are similarly critical of the 'brainy pirates' saying with a smirk on their faces:

Ahhh! You didn't get us out of this one did you
Table 5
CHECK TEXT scores and reports for Rachael's pirate stories

<table>
<thead>
<tr>
<th>Feature</th>
<th>Control</th>
<th>First stage</th>
<th>Second stage</th>
<th>Third stage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Score</td>
<td>Report</td>
<td>Score</td>
<td>Report</td>
</tr>
<tr>
<td>Total number of words</td>
<td>350</td>
<td>Fair</td>
<td>699</td>
<td>Good</td>
</tr>
<tr>
<td>Variety of words in first 100</td>
<td>67%</td>
<td>Fair</td>
<td>70%</td>
<td>Good</td>
</tr>
<tr>
<td>Ands used to total words</td>
<td>2%</td>
<td>Good</td>
<td>2.6%</td>
<td>Fair</td>
</tr>
<tr>
<td>Common connectives</td>
<td>1.7%</td>
<td>Fair</td>
<td>2%</td>
<td>Fair</td>
</tr>
<tr>
<td>Simple sentence starters</td>
<td>39.3%</td>
<td>Fair</td>
<td>50%</td>
<td>Fair</td>
</tr>
<tr>
<td>Average sentence length in words</td>
<td>12.5</td>
<td>Good</td>
<td>15.2</td>
<td>Good</td>
</tr>
<tr>
<td>Number of words over five letters</td>
<td>14.9%</td>
<td>Fair</td>
<td>13.9%</td>
<td>Fair</td>
</tr>
<tr>
<td>Common verbs used to total words</td>
<td>3.4%</td>
<td>Good</td>
<td>5.9%</td>
<td>Poor</td>
</tr>
<tr>
<td>Adverbs used to total words</td>
<td>0.3%</td>
<td>Poor</td>
<td>0.7%</td>
<td>Fair</td>
</tr>
<tr>
<td>Common words to total words</td>
<td>7.1%</td>
<td>Good</td>
<td>10.4%</td>
<td>Fair</td>
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<tr>
<td>Mean words per sentence</td>
<td>12.5</td>
<td>Fair</td>
<td>15.2</td>
<td>Fair</td>
</tr>
<tr>
<td>Sentence to comma ratio</td>
<td>∞</td>
<td>Poor</td>
<td>15.2</td>
<td>Poor</td>
</tr>
</tbody>
</table>

The pirates’ enthusiasm for treasure is made obvious:

The crew had to speak sometime because what they had seen was what they wanted. Altogether (not knowing that another pirate or pirates were going to say it as well) they screamed, “Let’s grab it.”

The only weakness with the story organization of the HARRY-assisted story is that some of the characters lack detail such as their names.

The CHECK TEXT scores for both stories (including each stage) are presented in Table 5. The ‘good’ reports for the control story and final stage of the HARRY-assisted story are highlighted.

CHECK TEXT scores for the control story show that most sentences are accurately demarcated with full stops (mean words per sentence = 12.5), but that commas are never used. The low average of words per sentence indicates a predominance of short, simple sentences. The low percentage of the basic connective ‘and’ (2%) and other common connectives (1.7%) suggests that the writing consists of few compound sentence constructions. A reasonable range of sentence structures is evident (simple sentence starters = 39.3%). Vocabulary is reasonably sophisticated (common words = 7.1%, common verbs = 3.4%, number of words > 5 letters = 14.9%) for example, reminds, entertainer, harbour, cocktail, sniffing, explained and varied (variety = 67%).

CHECK TEXT awarded Rachael’s HARRY-assisted story three more good reports than her control story. CHECK TEXT indicates that improvements have been made with the HARRY-assisted story in the variety (72%), although not the sophistication of vocabulary (words > 5 letters = 14.8%, common verbs = 5%, common words = 9.1%, adverbs = 0.9%). Punctuation is improved with clauses in complex sentences demarcated by commas (sentence to comma ratio = 0.8) and different ways of starting sentences are attempted (simple sentence starters = 32.8%).
When writing both the control and the assisted story, Rachael worked fast—without pausing or rereading any part of her story. During the composing (first) stage of the HARRY-assisted story, Rachael flicked quickly between the help boxes, closing them all down before writing each section. She typed furiously, like a touch typist. Although Rachael appeared to open and close the boxes too quickly to allow sufficient time for fully reading their contents, the suggestions contained within them seemed to influence the ideas Rachael developed in her story. HARRY’s word suggestions (such as sharks, treasure, hammock, bedlam) may have caused her to devise the events described above around them. Furthermore, there were several indications that Rachael was reflecting about the content of her story. For instance, in the welcome section, Rachael recorded details concerning the ship’s appearance. She intended to call it the ‘scruffy ship’ because it was ‘really scruffy’, ‘dirty and untidy’, with a ‘rusty funnel’. When Rachael wrote her opening paragraph, she demonstrated how she had considered the ship’s appearance from the Captain’s point of view—although the ship was shabby, he considered it beautiful! She may have been influenced by one of HARRY’s help ideas which asked ‘Is it a shabby or neat ship?’ The second guiding prompt suggested that ‘one of the pirates could cause an accident by being lazy or clumsy about one of his jobs’. A suggestion within the supporting ideas prompt was ‘perhaps a pirate (who can’t swim) falls overboard’, whilst the sentence help suggested using dialogue such as ‘It’s all your fault…’. A humorous argument between the ‘lazy pirates’ and the ‘brainy pirates’ (see above) was the central theme of her story, and the argument started when the lazy pirates were knocked out of their hammocks overboard. When writing the final paragraph Rachael commented on how she liked the word ‘cheers’ (from one of the sentence help suggestions for how to end the story). She kept the sentence help box open the entire time she was writing the final section, to remind herself to finish the story with the Captain saying ‘Cheers!’

It was anticipated that the editing suggestions would cause the children to simply ‘tidy up’ their writing—refine single words and rethink punctuation because the process of reviewing and revising would have already occurred. HARRY’s editing suggestions prompted Rachael to critically re-evaluate her writing. She deleted words, phrases and sentences and substituted others in three of the sections. Research such as Shaughnessy’s (1977)—outlined earlier—has indicated that making these kinds of changes is a rare occurrence for beginner writers. The CHECK TEXT analysis reveals how Rachael wrote an additional 45 words during the second stage. For instance, Rachael started to alter her fifth section (where HARRY had merely suggested finding alternative words for ‘saw, going and then’), then decided to rewrite the section completely. This is how the section had been written before editing:

Know one was actually helping because they were all trying to steer away from the shark. Nobody noticed what was going to happen. They were steering themselves into a sea rock. Then they all saw what happened they drove themselves through the rock.
After editing, the paragraph was changed to (N.B. new phrases and sentences have been italicized):

Know one was actually helping because they were all trying to steer away from the shark. Nobody noticed what would be happening to them in a matter of seconds. They were steering themselves into a sea rock. Soon after they all knew what was happening they had driven themselves through the rock. They thought they had escaped from the shark because a door had opened and let them into a secret hiding place really. So it looked like they were safe but the shark would not give up...

Similarly, Rachael spent some time rethinking the way she started her sentences in response to HARRY detecting that she had started many of them with the definite article. Giving 'The captain' a name partially helped solve one problem: 'The captain was awakened by cheers of joy' was altered to 'Captain Paul was awakened by cheers of joy', but Rachael was not entirely satisfied with her solution. During the process of correcting spellings with the spell checker available with Microsoft Word, the grammar checker offered an alternative solution: 'Cheers of joy awakened Captain Paul', which, in view of the struggle she had just experienced, clearly felt like inspiration—"Oh, that's how you do it," she remarked.

6.2.3. Tom

A different approach has been adopted for the presentation of this case study. Tom’s control and HARRY-assisted stories are presented in full, in Appendix C. The HARRY-assisted story was written in conjunction with the prompts presented in Appendix A. Figs. 2-4 depict some of HARRY’s guidance for this story, exactly as it was delivered. Table 6 presents the scores and reports calculated by CHECK TEXT. The difference in writing performance, both qualitatively and quantitatively,
between the control and HARRY-assisted stories is self-evident. The writing process in which Tom was engaged can be partly inferred by examining the prompts in conjunction with each section of the HARRY-assisted story.

7. Conclusion

HARRY aims to change the way children approach the task of writing. HARRY does this by prompting children to conduct an internal dialogue about the evolving text, causing them to reflect. Composing is simultaneously revising. By combining the sub-processes of brainstorming, planning, composing, reviewing and revising, the system successfully enables children to experience the thinking processes that occur in the heads of mature writers, provided they utilize the available facilities. The ability to deliver the different sub-processes of composition in any order makes HARRY consistent with the idiosyncratic way the mind works. HARRY solves the problem children have in coping with several tasks simultaneously by presenting different aspects of the process separately when requested. The expert knowledge delivered by the composing prompts, engages the children in a process of cognitive conflict, challenging them to devise alternative original ideas. HARRY’s editing suggestions help children with proof reading their narratives. Commenting upon weaknesses can be a time consuming and repetitive task for human teachers. HARRY systematically and successfully detects many children’s grammar and style weaknesses and is effective at guiding children through the processes of detection, identification and correction of their weaknesses. The fact that the HARRY-assisted stories were better than the controls demonstrates the tool’s architecture is sound. However, the system would benefit from further development to ensure children both interact sufficiently with HARRY and make effective use of HARRY’s guidance. Ultimately of course, children need to learn to write effectively alone. Vygotsky’s work suggests that children will learn to adopt the mature writing process through repeated experience of the type of guidance offered by HARRY, and that the scaffolding should be reduced gradually. This aspect will be the focus of future research.

Appendix A

See Table 7.

Appendix B. Examples of editing prompts

Punctuation

- Check the long sentence that begins [...] . It may need breaking into smaller sentences (targeting sentences longer than 30 words).
Table 7
Examples of the range of feedforward prompts delivered during the process of composing a story about an enchanted journey

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Guiding prompt</th>
<th>Ideas help</th>
<th>Word help</th>
<th>Sentence help</th>
<th>check</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welcome</td>
<td>The King is very ill. Travellers must fetch a special magic healing stone. Your story should be about the dangers they meet as they return with the stone. Make a list of ideas for this story in the box below.</td>
<td>This should be a mysterious story where strange things sometimes happen. The stone will probably nearly get lost or stolen several times on the way. How? Will your characters be modern or from the past? Will they be young or old?</td>
<td>Explorers, rugged clothes, trailing cloaks, ventured, strode, lingered, plodded, ventured, trekked, dangerous, risky, challenge, quest, mission, strange.</td>
<td>Write down any good phrases you can think of which you could use later like: The mission was far harder than they could ever have imagined.</td>
<td>Come back to this or any other page to find ideas for what to write.</td>
</tr>
<tr>
<td>Start</td>
<td>Set the scene. Describe the King's Palace. Perhaps the King is ill on a bed and the courtiers are discussing what should be done.</td>
<td>Does the King sneeze or cough? Have a fever? Pale and weak? Do the servants speak loudly or in hushed whispers afraid to disturb the King? Is there a doctor examining the King?</td>
<td>Think of different adjectives to describe the palace like: vast windows, tiled ceiling, marble floor, sumptuous red velvet curtains, golden statues, magnificent candelabra,</td>
<td>Use similes to describe the size and splendour of the palace—as enormous as... As shiny as... as smooth as... as magnificent like... cluttered like....</td>
<td>Does your description flow well. Did you use lots of adjectives and adverbs. How about a simile?</td>
</tr>
<tr>
<td>Character</td>
<td>Tell me more about how the travellers chosen to undertake the difficult task of getting the healing stone introduced themselves at the palace.</td>
<td>Give them unusual names? Write about what the travellers say, think and do to show what they are like! How will they prove they are brave and courageous enough for the task?</td>
<td>Use words which show how someone feels like: suggested, interrupted, boasted, exaggerated, claimed. Were they looking serious or smiling, with a grin which stretched from ear to ear, or something else?</td>
<td>Use dialogue to show how confident they are—&quot;Of course I'm not scared, I killed a pit of snakes and wild wolves on my last mission!&quot; or &quot;It'll be easy, a piece of cake! I'll be back with that stone before you can say...&quot; &quot;Have no fear... is here!&quot;</td>
<td>Have you given the travellers interesting names? How did the travellers prove they had the courage to undertake the mission?</td>
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<tr>
<td>Setting</td>
<td>Tell me how the travellers prepare for the mission. Describe the first part</td>
<td>Do they take any special equipment to help them on their</td>
<td>Gem, sparkled, shine, beautiful, gleamed, glistening, flashing, flickering, dazzling, glowing,</td>
<td>Build up to seeing the stone using two short sentences followed by a long.</td>
<td>Try to make the part where the healing stone is seen or touched for the</td>
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of the journey. Where do they find the stone? Dangerous journey? Perhaps a map, a rope, a knife, food and water? What do they all think of the stone when they find it? Boring and dull until...

Action The travellers may stumble across a town on their journey back to the Palace.

Key (Town) Not everyone turns out to be friendly and helpful in the town!

Complication I have a feeling something will go very wrong in your story soon! But maybe things don’t turn out to be quite as bad as they seemed at first.

Action Tell me about the route the travellers take on their way back. Do they meet anyone on the way? Are they friendly or not?

Key (magician) Tell me more about the magician!

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<td>Not everyone turns out to be friendly and helpful in the town!</td>
<td>Everyone will be anxious and worried at first... then relieved, pleased, thankful or ecstatic when the last person is found.</td>
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<td>Strategy</td>
<td>Guiding prompt</td>
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<tr>
<td>Last</td>
<td>You've got to the last part of your story already! The travellers need to return safely and give the stone to the King!</td>
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As the prompts are delivered randomly, each writer receives a different set of prompts. The Key prompts are dependent upon key words present in the text. If no key words are present, the next stage of the strategy is delivered.
• Check the sentence beginning [...]. It may need commas (targeting sentences with more than 12 words without a comma, full stop, brackets or comma like words e.g. and, because).
• You may need a comma after the word (targeting adverbs beginning a sentence).
• You may need a comma before the word (targeting common connectives beginning a clause e.g. but, so).
• You may need a question mark at the end of the question beginning [...] (targeting sentences beginning with question words e.g. Who, Where, etc. punctuated with full stops).
• The word(s) [...] needs an exclamation mark after it (targeting one and two word minor sentences).

Vocabulary
• You have used the word (simple word e.g. said, big, went, got), you could use another like (examples).
• You have used the word (repeated common connective e.g. so, then), do you really need it?
• You have used the word (repeated topic word), try an alternative like (examples).

Sentence construction
• Try not to use the word and more than once in a sentence. You could replace one and with a comma, or a full stop + another word which fits.
• You have three or more short sentences in a row. You could link two of them with a connective like: if, with, because, when, now, except, while, although.
• You have three or more long sentences in a row of almost the same length. Try breaking one of them into shorter sentences to vary them.
• You have used the word [...] to start three or more sentences. Can you think of a different way to start them?

Appendix C. Example stories

Tom’s control story

Enchanted journey

The king was suffering from a type of aneserier a kind of sickness that could kill you so he had to get a magic stone to get his health back so he gathered his people and cried.

"People of Pamaliar I need someone to get this rummed magic stone" "we shall have tests! They start tomorrow in the afternoon so come if you want." So the very next day people from all over Pamaliar came to win the honour of getting the stone

Scott smith informed his mum that there was tests and said

“I’m going to enter” and hurried out the door
“Be careful Scott,” yelled his mum. The first test was an obstacle course. The second test was a skill test and the third test was a staying calm test, and Scott passed them all so he got the job of retrieving the stone. So he set off well he got to the stone all right but on the way back he fell down a pit, meanwhile things were going haywire at the palace.

“Were is he” said a guard
“We should sent a adult,” said another
“But he did complete all the tests with no faults” said another. Meanwhile back at the cave Scott thought where am I anywhere I better get off this unstable ground it dropped onto spikes but Scott’s quick instincts warned him to jump off it when it fell. But it was no time to think about it because a boulder rolled after him and he ran till he was flat on a wall he rolled out of the way. The boulder crashed into the wall it made a hole in the wall and Scott ran out, back to the palace with the stone then he gave the king the magic stone so he could heal himself.

Tom's HARRY-assisted story

Enchanted journey

“What?” cried the servant as he served breakfast.
“Hu!” asked the cook “what happened?”
“I think we’d all like to know that,” said another servant.
“The king is ill!” The king was ill and know one could deny it. There he was sitting up in bed eyes just staring at the sparkling ruby mirror.
“And it’s supposed to be changing of the guard today,” cried the servant.
“Calm down!” ordered the king “it will just have to wait now somebody must retrieve that healing stone. The servants rushed to court thew the glittering gold palace and though tall high doors like ladders. The king looked though the vast open window swounded in jewels and fell to the ground with tiredness.
“By order of King Robert, somebody has to search for the fabled healing stone,” addressed the servant. The crowd was astounded by the servant coming to court not the king, but then Frank the show off boasted
“Leave it to me I am by far the best!”
“No no no, we are having a tournament to find are Champion’s,” anouncement the servant. So they had an obstacle course to see who was best they had the show off, The three friends Cheeky, Rosie and Jacky, so they all set off.

So the three friends packed a flask of water, plenty of food, a rope, a knife, coat hangers (for sliding down the rope), extra clothes and a bow with lots and lots and lots of arrows in three rucksacks. Then they set off. They soon found the dark cave. They entered very carefully and when they arrived at the stone’s pillar it wasn’t there, Frank had beaten them to it. When they approached the pillar, where the stone was there was an earthquake. They fell thew the ground where they pocketed the fake stone and decided to find Frank.

They thought of climbing up the rope. When they climbed to the top there was a landslide and a cave-in, so they jumped down the pit. When they foiled a twisted tunnel, they spotted daylight ahead of them. Then they rerised that they would have
to cross a pit to reach it, so they pulled out the rope and they slid across on the
coathangers. Two of them snapped. When they were finally across they dashed to the
nearest town. Boy was it busy there was a hustle and bustle, they had to squeeze
though the crowd to arrive at the inn. Choosing to stay the night. Cheeky woke them
all up as a prank. Jack and Rosie were sad to leave the comfy warm beds, but after
they had eaten a hearty breakfast they thought of buying supplies seeing as the inn
didn't serve breakfast. Then they rereased that the town always had blare of music on
classical, jazz or about just anything in the crowded coulbled streets. There was
dazzling performances every hour and tons of chatter. Seeing as it was a Cliffside
town, about everybody came there, to try superb drinks from the pub. Watching
Frank chatting to what must be his friend, they came in and told Frank,
“That is not the true stone that is just a mirror image.” Cheeky traded the false
stone for the true one, then Frank yelled see you losers and he speed though the
towns narrow streets into the next cave.
As they set off a man came speeding up to them and snatched the stone.
“Stop thief!” the children cried. Soon there was an hot pursuit zig zagging though
the town. Soon the culprit reriesed they were hot on his trail. He panicked and
charged straight into a lamppost. He chrased to the ground. The children not missing
there chance raced up to him, grapped the stone, took the man to the police and
dashed away before anything else happened to the next cave.
“Help,” cried a voice.
“Help!” there it was again.
“HELP!!!” I thought I heard a voice Rosie told the others Jack gave Cheeky a
sideways look the children stumbled forward and found Frank clinging on for dear
life. Rosie told the others that if they worked together they would be able to rescue
him. So Rosie held Jacks hand and Jacks other hand held a rock. Frank grapped
Rosies hand, but because of the weight Jacks hand slipped off the rock! Cheeky leapt
into action by grabbing Jacks hand and reeling them in like a fisherman would with
his catch! They didn't have to do that they could have just left Frank to die. They
saved him they were all relieved asellpel Frank. Then they yanked out the rope. The
three friends slid across on coat hangers and Frank monkeybared across.
As they travelled back to the palace, they talked about the adventures there'd been
on, when they came across a little cottage, they knocked on the door. It was clearly a
magician who lived there because he had robes on. He looked friendly, but they
approached carefully.
“I don't trust him” whispered Frank.
“I don't either” replied Jack in a whisper.
The magician was very tall. He had a trailing black cloak dropping down behind
him and a pointed hat.
“Well, well, well, what do we have here” the magician muttered to himself and he
asked.
“What are you doing here?” “Nether mind Your returning to the king aren't you.
“Yes, we are” replied Cheeky “how did you know?”
“I just know,” replied the magician, “now come on in, I have a few things you
might like.” So they popped into the magicians cottage and he gave them a potion to
drink when they were going on their way. They ate and drank to their hearts content, then they rested until the morning when they bid farewell before they left.

"Come on come on" cried the servant "aha there here." The children found that the potion had transported them straight to the palace where the king was just about to die when the servant shouted for joy.

"They're here oh, well done!" So they went directly to the king, they tried Franks stone (the fake one). It didn't work they were worried. Quickly they produced the real stone, but it didn't work!

"Oh, no!" shouted the servant in alarm. As if he knew the magician broke in and suggested frantically.

"Poor this potion on the real stone it will make it work."

"How do you know?" asked Jack.

"I kown because I made them" replied the magician. So they poured the potion on, it worked. They threw a royal party and everybody was invited.

References


Improving children’s written grammar and style: revising and editing with HARRY

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Abstract

Children usually improve their writing in response to teacher comments. HARRY is a computer tutor, designed to assist children improve their narrative writing, focusing particularly upon grammar and style. Providing assistance involved identifying aspects of grammar and style on which to concentrate, including ways to enable the computer to detect weaknesses and then present information concerning how to make improvements. HARRY delivers general, conversational style suggestions for how to revise a text during composition, followed by editing suggestions targeting specific grammar and style weaknesses detected in the text. Finally, spellings and technical errors are corrected in MS Word. Evaluating a writing intervention strategy is problematic, as paradoxically, attempts by children to improve texts, can result in a deterioration in some aspects of writing quality. Four case studies are presented to demonstrate the effects of the HARRY writing system upon children’s grammar and style. Each child wrote a control and a HARRY assisted story. HARRY’s effectiveness at improving written grammar and style is demonstrated through analyses made of the narratives by CHECK TEXT, a utility tool that calculates and interprets quantitative data. Separate analysis of each stage of the HARRY assisted stories reveals the idiosyncratic pattern of improvement exhibited by each child.

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Keywords: Hypermedia systems; Elementary education; Improving classroom teaching; Teaching strategies; Evaluation methodologies

1. Introduction

For mature writers, writing is essentially rewriting (Murray, 1984). Revision is the means by which a text is gradually improved. Children however, rarely initiate revisions to their writing, whether they are using pencil and paper or a word processor. Most children merely proof read at

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a superficial level focusing on spelling (Bereiter & Scardamalia, 1983). Studies such as Hillocks (1982) and Trushell (1986) indicate that children only attempt to revise their writing in response to external evaluations provided by either peers or teachers. Trushell (1986) found that collaborative writing had the effect of moving children towards achieving more sophisticated writing, whilst Hillocks (1982) noted that children produced better stories when they revised in response to teacher questions directed at specific features. Other studies indicate that helping children to learn how to improve their own writing is not an easy task. Harpin’s (1976) study, demonstrating how children’s writing changed through primary school, using measures such as word counts and sentence and clause lengths, revealed that some children appear to advance very little over considerable periods of time. Bereiter and Scardamalia (1987) noted how their most successful experiments in affecting children’s composing processes did not lead to discernible improvements, as judged by impressionistic ratings. Assessing the effectiveness of writing intervention strategies is also problematic however. Karmiloff-Smith (1992) observed that attempts by children to improve their writing, by reflecting upon it, can result in the opposite effect—a drop in writing quality. Sharples (1999, p. 29) describes the process of gaining the ability to reflect as a ‘U-shaped learning curve’. Reflection can lead a child to the bottom of the curve, but be insufficient to help the child up the other side. There may be several causes of this phenomenon. Reflecting upon performance may take up valuable mental space and disrupt the child’s flow of ideas. Alternatively, the child may try to implement writing techniques or strategies without fully understanding how to apply them successfully. The paradox has important implications for the evaluation of a computer tool aiming to help children improve writing quality. Merely regarding higher statistical scores as evidence of improvement for instance, would clearly be inadequate. Attention must be paid to differences in writing quality, not simply ‘improvements’.

This paper details the design and evaluation of HARRY—a computer tool aiming to assist children improve their narrative writing, focusing particularly upon grammar and style, by encouraging them to revise and edit their texts. Implementation of these features required a review of the research concerning the differences in grammar and style between mature and beginner writers, reasons why children experience difficulties with revision and editing, effective teaching methods for helping children improve grammar and style, and previous systems which have facilitated revising and editing. The effects of the writing tool upon children’s written grammar and style are evaluated using a specially designed utility tool—CHECK TEXT—designed to compare children’s written grammar and style to national standards. Four case studies are presented. The studies demonstrate the idiosyncratic pattern of improvement exhibited by each child.

1.1. Comparison of written grammar and style between mature and beginner writers

Kress (1994) and Perera (1984) have identified many differences between the written grammar and style of mature and beginner writers. Young children characteristically use simple vocabulary such as ‘big’, ‘nice’, ‘said’, ‘went’, ‘saw’, ‘got’ etc. They record their thoughts and ideas in simple sentences and frequently exhibit excessive repetition of the same subject pronoun such as I...I...I or He...He...He, which results in a monotonous writing style. Compound sentences are also a feature of young beginner writers with sentences often linked by several ‘and’s or ‘and then’s. Very young children are resistant to using any punctuation (Hall, 1998).
Mature writing is evidenced by varied and sophisticated vocabulary. Words are chosen to convey precise shades of meaning. Over use of simple connectives such as ‘and’ is avoided by replacing an ‘and’ with a full stop and beginning a new sentence, substituting an alternative connective for ‘and’ such as ‘when’ or ‘whilst’ etc., or by substituting a comma. Mature writing is further characterised by the presence of a variety of sentence constructions, achieved by creating different clause structures, by using different kinds of sentences (statements, questions, exclamations etc.) and by using different types of sentences (minor, simple, compound or complex). Although mature writers use a greater proportion of complex sentence constructions than beginner writers do, they recognise that there is no virtue in complexity for its own sake. Short, simple sentences are interspersed between longer, more complex sentence constructions when writing a narrative, to achieve particular effects—short sentences can add suspense whilst long sentences comprised of several clauses, can enhance descriptions. In addition, mature writers punctuate their writing accurately. By displaying the grammatical structure, they make their texts clear for others to read.

1.2. Children's difficulties with revision

Children's general lack of revision is due, not to reluctance on the part of the young writers to make changes to their own drafts, but to the inherent difficulties involved with the task. Researchers account for the difficulties in different ways. Research based on Piagetain (1926) theories of cognitive development, such as Bereiter and Scardamalia (1987) suggests there may be certain cognitive limits on the skills that even practised children can acquire. With this view, children's revision problems are seen to stem from an inability to represent an event from two points of view—their own and that of the reader. Only when children's egocentrism eventually diminishes will they learn to maintain two points of view and make decentred comparisons between them.

Other researchers such as Bartlett (1982) suggest an alternative reason for why children are unable to revise—revision involves two key processes: detecting (which includes identifying) a problem followed by the ability to successfully correct it. For mature writers, detection and correction are performed simultaneously, but for beginner writers, difficulties can arise in either of the processes. Children may comment that “this isn't right”, but be unable to correct the problem or be able to correct a problem, but only if directed to it. In order to detect a problem, writers must achieve a detachment from their work that allows them to see what is on the page, not what they hope will be on the page. The writer must inhibit interpretations based on knowledge of the writer's own intentions, such as with the statement “that's his brother”, where “his” means Sam! This is privileged knowledge known only to the writer. As writers do not have privileged information about texts composed by others, they will not be faced with the problem of inhibiting it. Bartlett's (1982) study suggests that this is the reason why children find it easier to detect problems in the texts of others rather than in their own. For children, detection is a haphazard process however, often proceeding without well-planned goals or strategies, and sometimes hampered by poor reading skills.

Success in correcting a text problem depends on adequate detection processes, but these need not necessarily lead to an appropriate correction. The children involved in Bartlett's study were frequently able to detect grammatical problems which they could not successfully correct.
Beginner writers may lack knowledge of a range of devices and may rely on familiar ones regardless of their appropriateness. They may also make decisions based on other, more mechanical constraints, such as knowing how to delete and insert material, or conversely, not knowing how to do this. Potter (1994) believed that the problem could be rectified by children having greater access to word processors (achieved by allocating children with cheap, personal, portable laptops), resulting in greater familiarity with the redrafting facilities. Teaching children how to make changes to a text is distinctly easier than helping them to reflect upon their text and see when changes are appropriate however.

1.3. Teaching methods

Pupils have not been explicitly taught grammar for several decades. It was assumed that grammar teaching did not improve children’s writing, a legacy of Wilkinson’s (1971) review of studies concerning grammar teaching, from which he concluded that the claims for grammar teaching were without ‘foundation’. It is only recently that this belief has been reconsidered, prompted largely by Tomlinson’s (1994) study, which drew attention to the weaknesses in some of the studies reviewed by Wilkinson. The current approach to teaching grammar is based upon the work of linguists such as Crystal (1995) who recognise the limitations of grammar teaching which concentrates on discrete ‘naming of parts’ and parsing in decontextualised text-book form. Instead, there is a concern with how different sentence structures, and the use of different words and phrases within the various parts of sentences, add interest and reflect particular genre features.

Helping children to acquire vocabulary presents an enormous challenge to teachers. Shaughnessy’s (1977) research indicates that there appear to be stubborn and individually different limits to the pace at which words enter pupils’ active vocabulary. She suggests that pupils benefit from experiencing the process of discriminating between words, thereby discovering the qualities of their ideas, through activities such as: substitution (taking words from the pupils’ own writing and asking them to list alternative synonyms) and looking at the first drafts of others to see how the writers ‘debated’ word choice.

How to best encourage children to move away from repeatedly using similar sentence constructions which depend upon basic connectives (especially ‘and’) presents teachers with another challenge. O’Hare (1973) and Shaughnessy (1977) suggest that ‘sentence combining activities’ can facilitate improvements in writing, as well as provide insights into grammatical structures. O’Hare suggests activities such as, turning statements into questions, combining sentences using a variety of connectives e.g. if, with, what, when, as, etc. and combining sentences by using the verb in its ‘ing’ form. Shaughnessy recommends activities such as, changing simple sentences to compound or complex sentences and changing complex sentences to simple.

Punctuation can also be difficult to convey, although teachers find some punctuation marks easier to explain than others (Robinson, 1996). Children usually enjoy using exclamation marks and adopt them readily—particularly exclamation marks used to punctuate one word, such as ‘Help!’ Question marks are considered relatively easy to explain—if someone asks a question, starting with a word such as ‘Who’, ‘Which’, ‘Where’ etc., it is fairly apparent to children where the question ends. Speech marks are also regarded as being within the grasp of most
children—speech bubbles are commonly used to demonstrate where they are required. More difficulty is experienced when trying to teach young children when to use full stops and commas. The central problem is that although linguists readily define ‘a sentence’, young children have no notion of the concept of ‘a complete sentence’. Consequently, learning how to punctuate a sentence is a slow developmental process.

The main explanations used by primary teachers for where to place full stops are pausing and intuition (Robinson, 1996). Children are frequently told to put a full stop where they can hear a long pause in a sentence or ‘where you take a breath’. A long pause indicates the need for full stop, a short pause indicates a comma. There are two problems with these explanations. First, there is an inconsistent relationship between pausing and punctuation. Oral speech does not always have pauses between those items which would in written language be seen as the boundaries between sentences, while it often does have pauses where no punctuation would be placed in written language. The second problem is that it relies on the child being able to hear the pauses, or lack of pauses, when reading the text. However, a child’s own reading may not provide a good model—some children scan ahead whilst reading and know where to take a breath, whereas others take a breath anywhere, even if it is not at the end of a sentence. Some teachers accept the difficulty of these explanations and try to get children to ‘feel’ a sentence. This is attempted by giving children good experience of reading texts with punctuation, through correction, partly through exercises asking children to place full stops in written text and partly through demonstrations on the board. The expectation is that children will develop intuition for what counts as a sentence.

How the teaching approaches outlined above are presented is crucial. It is clear that children are more likely to employ correct punctuation, adventurous and sophisticated vocabulary, and a variety of sentence constructions including complex sentences, if they are taught these aspects in the context of their own writing, rather than through the use of drills and exercises (Crystal, 1995). Computer use alone does not increase a child’s willingness or ability to revise and edit simply because it makes the tasks easier by having the capacity to rearrange texts, delete and insert words or suggest alternative synonyms contained in a thesaurus etc. (The National Writing Project, 1990). Therefore, word processing tools need to be supplemented with strategies designed to help children improve their texts. Although mature writers sometimes edit their texts during the composition process, for children, editing is best left until after the text content and organisation has been completed, as preoccupation with achieving correct grammar (including spelling) can interrupt and stifle children’s flow of ideas (Smith, 1982). Moreover, teachers who concentrate on grammar skills at the expense of content may actually be doing their pupils a disservice when it comes to learning punctuation (Cordeiro, Giacobbe, & Cazden, 1983).

1.4. Alternative systems

Text analysis applications such as ‘Writer’s helper for Windows’ carry out objective, statistical analyses of features such as word frequencies and sentence lengths. The applications are targeted at adults however, who are expected to be already highly competent at writing, as they highlight for instance: split infinitives, weak phrases, percentage of abstract words, percentage of passive sentences and readability scores. Writers are expected to interpret the significance of the statistics, using the information to improve their texts accordingly. Text analysis is usually regarded as
unsuitable for children, as much of the available statistical information is inappropriate and the
method of presentation is likely to be meaningless to them. Word processors such as MS Word
offer some assistance by providing grammar checks, but as with text analysis applications, the
help provided, such as highlighting sentences longer than 50 words and extra spaces inserted
between words etc., is targeted at an adult audience.

The approaches adopted by two alternative systems, specifically aiming to assist children
develop revising and editing skills, are presented here. CATCH (Daiute, 1985) was an application
designed for young adolescent writers. At any stage of the composing process, the writer could
request assistance. The system presented comments or questions one at a time, some of which
were based on pattern analyses related to the sentence structure and punctuation of the text, for
example the detection of empty words such as 'sort of' and 'well' resulted in the prompt: 'the
highlighted words may not be necessary. Do you want to make changes?' Other
prompts were concerned with revising the content of the text, for example: 'How can I make my character seem
more real?' Daiute reported that the system was largely unsuccessful. Although the students made
more changes to the texts, the changes did not necessarily result in improvements. CATCH's lack
of success may have been due to prompts being insufficiently explicit at explaining how to make
effective changes and a failure to highlight significant features, which when corrected, would
result in improvements.

StoryStation (Robertson & Wiemer-Hastings, 2002) aimed to encourage children to review and
revise their writing through the provision of two types of support: tools and feedback. The tools
were, a dictionary, a thesaurus, word banks and a word count facility. These were intended to
help children while they were planning or composing their stories. Two kinds of feedback were
provided: negative feedback designed to highlight mistakes and positive feedback which high­
lighted 'good' aspects of writing. The negative feedback was limited to spelling mistakes and
overuse of the basic connectives and, but and because. The positive feedback was restricted to
characterisation. It included: 'good' vocabulary, dialogue, character descriptions and descriptions
of character's feelings and personality. The feedback was colour coded, giving the text the appearance of having been highlighted with coloured felt pens. Spelling mistakes were
coloured orange and basic connectives were coloured red. Positive feedback concerning
characterisation was coloured grey, green, blue and pink. The feedback was generated by
comparing skills evident in the story with skills demonstrated in previous stories. The study
indicated that some pupils were confused by the inclusion of positive advice alongside
negative advice. In addition, the children quickly discovered that they only needed to
respond to the aspects highlighted in red and orange—spelling mistakes and overuse of basic
connectives.

The main limitation of both CATCH and StoryStation was that although the systems encour­
aged revision and identified weaknesses, neither system made it clear to children how to make
improvements. The research literature indicates that children require assistance with learning
effective revision strategies, such as debating word choice and varying sentence constructions.
They also require assistance with detecting, identifying and correcting significant grammar and
style weaknesses, such as overuse of the basic connective 'and', lack of full stops, and simple and
repetitive vocabulary. For children, it is best if revising and editing are separated into different
stages. A new computer tool—HARRY—is currently being developed, aiming to fulfil these
design criteria.
2. HARRY

HARRY separates the writing process into three stages. During stage one, children are encouraged to revise as they compose a narrative. At stage two, HARRY detects grammar and style weaknesses and suggests ways of editing the text. Spelling and technical errors are corrected at the third stage, when the narrative has been transferred to MS Word. At present, HARRY offers assistance with four story themes: space, pirates, woodland adventure and an enchanted journey. The screen design for stage one is presented in Fig. 1.

During the first stage, written prompts are presented when requested by children, before, during and after they write. Some prompts guide the structure of the narrative; others encourage children to continually revise their writing. A strategy table ensures that each story is structured logically. Each story is divided into sections such as: start, setting, character, action, complication, last. The order of the sections is different for each story because the strategy is flexible. Children are expected to compose their story, working on a section of the story at a time, in response to guiding prompts presented to them, such as:

Start: ‘Try starting your story with the children talking as they pack to go on holiday’.
Character: ‘Tell me more about the children in your story. What are they like?’
Setting: ‘Get the children to explore the wood. Describe what it is like there’.
Action: ‘Perhaps the children make a discovery! Make this part as exciting as you can!’
Complication: ‘I have a feeling something will go wrong in your story soon! But may be things don’t turn out to be quite as bad as they first seemed.’
Last: ‘You’ve got to the last part of your story already. Explain what happens as a result of the adventure’.

![Fig. 1. Stage 1: composing/revising screen with word help pop-up box open.](image-url)
Children move on to the next section of the story by clicking on the ‘What Next?’ button. They can move backwards and forwards between completed sections by clicking on the arrow buttons and they can temporarily stop writing by clicking on the ‘that’s it for now!’ button. As they compose, children can request additional suggestions by clicking on the ‘help’ buttons—‘ideas’, ‘sentence help’, ‘useful words’ and ‘check’. The suggestions accessed by these buttons appear in pop up boxes. The help pop up boxes aim to encourage children to review and revise their writing. The boxes can be viewed in any order and any number of times. The ideas help contains suggestions for developing the plot. For example, if the guiding prompt suggests the characters in the story make an exciting discovery, the ideas pop up box will contain appropriate suggestions for plot ideas such as, ‘perhaps they could discover a secret tunnel, a den or a secret garden’. The Check help reminds the child to review and revise their text in the ways suggested in the help boxes.

The word and sentence help suggestions are presented in more detail here, as their purpose is to demonstrate constructive ways of improving upon grammar and style whilst composing. Sentence help suggestions encourage children to vary the sentence constructions they use when writing a story (write complex sentences and interweave descriptions with dialogue etc.) by suggesting the writer includes:

**Dialogue—example prompt:** ‘You can show what someone is like by what they say—like this, “I’ll go first,” suggested Tim “I’m not scared”.

**A question or several questions—example prompt:** ‘Try to build up a sense of mystery about the house by writing questions, like this, “What was that sound? Do you think it was a door banging?”

**Minor sentences and short punchy sentences—example prompt:** ‘Write some really short sentences in between long ones like this: He smiled. Of course. That was it! They would have to…’

**A variety of connectives and prepositions as links between clauses, in order to create varied complex sentences.** ‘Link descriptions together with words like before, when, whilst, after. Like this: The crazy explorer jumped from one foot to another whilst…’

**Interesting sentence starters to vary the way sentences are started—example prompt:** ‘Try one of these sentence starters: At that moment, A thought flashed in his head, Next minute, The next thing that happened…’

**Starting a sentence with an adverb to vary the way sentences are started—example prompt:** ‘Try using adverbs to start your sentences such as: Unfortunately, Fortunately, Luckily, Sadly, Next, Later…’

**Starting a sentence with a non-finite verb in order to encourage children to vary word order within sentences whilst simultaneously creating complex sentences—example prompt:** ‘Try starting your next sentence with a verb, like this: Turning the corner, Going closer, Not knowing what it was, Looking up…’

**Writing similes and metaphors—example prompt:** ‘Use similes to describe the wood and the house like this: The trees stood close together looking like…To the left, a large house stood silently, as if…’

‘Word help’ encourages the careful selection of appropriate and sophisticated vocabulary. A list of alternative words relevant to the theme of each section is provided. Word help suggestions aim to extend pupils’ vocabulary resources by suggesting:
Alternative synonyms so that children use words which express their ideas precisely—example prompt: 'Remember to say how someone talks. May be they whispered, boasted, interrupted, suggested, or gasped? Do they do this nervously, smiling or quietly?'

Alternative adjectives and adjectival phrases to assist children in the creation of effective descriptions—example prompt: 'Words to describe the King’s palace: polished marble floor, sumptuous red velvet curtains, golden statues, magnificent chandelier shining like..., vast windows as tall as....

Alternative connectives to encourage children to experiment with a variety of connectives, rather than the typical limited range comprising and, then, but, so, because etc. Example prompt: 'Here are some good words to link phrases together: although, after, otherwise, since'.

Alternative adverbs and prepositions so that sentences are sometimes expanded to include the details of ‘how’ and ‘where’. Example prompt: 'You could create a busy feeling. Or everything could be slow and calm. It depends on the adverbs you choose. Do they do things quickly, excitedly, in a rush? Or leisurely, slowly and carefully? Alternatively, 'Explain where the action took place... opposite ... outside ... next to ... in the middle of...'

Several hundred prompts related to the four story themes, are stored in Access databases, categorised into start, setting, character, action, complication, last. Each of these categories is further divided into four fields: ideas help, sentence help, word help and check which store supplementary prompts pertinent to each guiding prompt. Each category contains 4–15 guiding prompts plus the associated help prompts. HARRY randomly presents one guiding prompt (plus the associated help prompts) for each section of the story. Thus, each child receives a different set of prompts. Example guiding prompts plus supplementary help prompts for just the start section of the Space story theme are provided in Table 1. When writing this section, the child would only view the prompts contained in one row of the table.

When the child has completed the composing stage, working through each section in turn in response to HARRY’s prompts, the child’s writing is transferred into the editing stage. The editing process is separated into two aspects: grammar and spelling. First, HARRY builds on the assistance provided during the composition stage by providing feedback concerning grammar weaknesses, then the document is transferred into MS Word, where the child is expected to correct spellings and technical errors with the aid of the spell and grammar checkers. The screen design for the editing stage is presented in Fig. 2.

Working through the story section by section, in the order that the sections were written in, HARRY identifies places where the text can be improved grammatically and stylistically, and makes suggestions for how to make the improvements. It is anticipated that the child will proof read and make appropriate amendments to the text in the light of the advice. Three aspects of writing are commented upon at the editing stage: punctuation, vocabulary and sentence construction. Feedback suggestions drawn from these categories are then listed, in order to help children identify specific places where improvements can be made and how these could be effectively achieved. The children are expected to respond to each prompt on the list in turn. As with the composing section, the editing prompts are conversational in style.

With the editing feedback, it was not the intention to carry out a complete grammatical analysis, but to highlight some significant weaknesses which could be improved upon. The following section describes how HARRY detects grammar weaknesses and the prompts which are delivered
<table>
<thead>
<tr>
<th>Guiding prompt</th>
<th>Ideas help</th>
<th>Sentence help</th>
<th>Word help</th>
<th>Check</th>
</tr>
</thead>
<tbody>
<tr>
<td>A good way to start your story would be to describe what it is like in space. Perhaps someone is looking through a telescope or looking out from a rocket.</td>
<td>Think about the darkness, the bright lights, the silence, the stillness and the different planets.</td>
<td>Try writing a simile like: Deep in space, it is as silent as... distant stars flash like... the planets look like...</td>
<td>Unending darkness, blinding lights, black expanse, mysterious, flickered, dazzled, glistened, brightly, slowly</td>
<td>Have you used at least three words to describe space? How about a simile?</td>
</tr>
<tr>
<td>You could start your story with a piece of action-something which is happening right now.</td>
<td>Perhaps a rocket has just been launched, or is about to land on a strange planet. Perhaps someone is playing a space computer game.</td>
<td>Try writing some really short sentences to make your opening exciting like this: Bang! The control panel started flashing, Red alert!</td>
<td>Try using adverbs to create an exciting or calm feeling like: quickly, excitedly, energetically, slowly, carefully, quietly.</td>
<td>Did you make the mood of this section clear with the words you chose? Is it a noisy, exciting start or a calm and peaceful start?</td>
</tr>
<tr>
<td>Try starting your story with something someone says. They could be in the middle of doing something!</td>
<td>Who could be talking? Someone building a rocket? Ground control? An astronaut? An alien? Who will reply?</td>
<td>Try writing a question, or several questions in a row like this: What was that? Did you see it? Do you think it's a UFO?</td>
<td>Think of different words for said like: called, ordered, shouted, interrupted, whispered, asked.</td>
<td>Did you vary your sentences by writing some questions?</td>
</tr>
</tbody>
</table>
as a consequence, suggest ways of achieving a more mature style. HARRY's suggestions for how to improve upon weaknesses, implements many of the teaching techniques outlined earlier (by for example, Shaughnessy and O'Hare).

2.1. Punctuation

2.1.1. Marking the end of sentences

HARRY indicates places in each section where full stops may have been omitted.

1. If more than 30 words are detected without a full stop, then the child is prompted to 'Check the long sentence beginning (...). It may need breaking up into smaller sentences'. The child is expected to locate the 'long sentence', then use the technique of either pausing or intuition to find places where full stops could be correctly positioned. If a full stop, exclamation or question mark is missing at the end of the section, the prompt 'You have forgotten the full stop at the end of this paragraph' will be delivered.

2. Questions which are demarcated with full stops rather than question marks are identified. Sentences beginning with question words such as: Who, Where, What etc. which end with a full stop are detected, resulting in the prompt: 'Do you need a question mark at the end of the question beginning [Where]?'

3. Minor sentences (one or two words) punctuated with full stops are highlighted, so that they can be replaced with exclamation marks, for example: 'The word [Hello] needs an exclamation mark after it!'
2.1.2. Marking clause boundaries

HARRY highlights places where commas might be used within sentences to separate clauses.

1. The co-ordinating connectives but, so, yet and then used within sentences (indicating compound sentences requiring a comma before the connective) are detected. For example, HARRY suggests 'You may need a comma before the word [but].

2. Sentences which begin with a single-word adverb (ending ly) such as ‘Suddenly’, which require a comma after the adverb are detected. HARRY also checks for other individual adverbs like: Also, Later, First and Last; interjections like: Yes, No, Yeah, Well, Ah and Oh; and connectives like: Yet, Also and So, used at the start of a sentence. If an adverb, an interjection or a connective is detected without a comma present at the start of a sentence, HARRY suggests 'You may need a comma after the word [Luckily]’ etc.

3. HARRY detects long complex sentences where commas may have been omitted, by highlighting places where between 12 and 30 words are written without the presence of a comma, full stop, brackets or comma like words (and, because, or, that). HARRY then suggests ‘Check the sentence beginning [. . .]. It may need commas. It is anticipated that having been alerted to the error, the child will use pausing or intuition to find appropriate places to position commas.

2.2. Vocabulary

HARRY checks for simple and frequently repeated words:

1. The simple words (One day, nice, big, said, went, walked, got, get, saw, ran, going, thing) are detected. Alternative, more sophisticated synonyms are offered, or the suggestion is made for the writer to think of an alternative for his/herself. For instance, HARRY suggests ‘You have used the word [nice]. You could use a better word like [beautiful, delicious, enjoyable, interesting or exciting]’, or 'You have used the word [get]. Try a better word or words'.

2. If the basic connectives also, so, then, but, because are repeatedly used in the whole text (more than a threshold of 0.8% of total words, a figure determined empirically) HARRY suggests: ‘You use the word [so] a lot in your writing. Do you really need it?’ etc.

3. If key words related to the story theme (journey, pirates, wood, space) are frequently repeated (more than a threshold of 0.8% of total words, a figure determined empirically) HARRY suggests for example: ‘You use the word [pirates] a lot in your writing. Try another word, or words, like shipmates, gang, bloodthirsty crew, dastardly bunch’.

2.3. Sentence construction

1. HARRY detects where the basic connectives and, but, because, then and so have been used twice or more in a sentence, suggesting: ‘Try not to use the word [and] more than once in a
sentence. You could replace one [and] with a comma, or a full stop followed by another word that fits'.

2. Sentences that start with the same word three or more times in one section, are detected and then commented upon: 'You have used the word [...] to start three or more sentences. Can you think of a different way to start these sentences?'

3. HARRY detects a sequence of three or more simple sentences (where each sentence is between 8 and 12 words long), commenting: 'You have several short sentences in a row. For a better effect, link two of them together with a word like: if, with, when, how, except, while, although'.

4. HARRY detects a sequence of three or more consecutive long sentences (between 14 and 20 words) and comments: 'You have several long sentences in a row. Try breaking one of them into shorter sentences to vary them'.

To avoid unnecessary repetition of the editing prompts, if a child writes more than one sentence in a section containing several 'and's, uses the same words requiring a comma or a specific simple word which would be improved by substituting an alternative synonym several times etc, the prompts in these cases are presented only once. This effectively reduces the number of prompts delivered. It was considered that young children would feel disheartened if they were presented with too many 'corrections'. Although the prompts have been presented in this section according to the category they relate to, in practice, the prompts are programmed to be delivered in the order of first prompts requiring the child to identify long sections of text, then prompts requiring the child to scan the text in the search for individual words, as the latter was thought to be less tiring to do than the former. The following example list of prompts is typical of the order, number and variety of prompts presented to help a child edit one section of text, although the number and variety of prompts, varies according to the length of the text and kind of weaknesses evident within it.

- Check the long sentence that begins ['First we'll show']. It may need breaking into shorter sentences with full stops.
- Try not to use the word [and] more than once in a sentence. You could replace one [and] with a comma, or a full stop followed by another word which fits.
- Do you need a question mark at the end of the question beginning [How]?
- You may need a comma after the word [Yes].
- You have used the word [said], try a better word like: suggested, whispered, joked, promised, interrupted, muttered or yelled.

HARRY is implemented on a Windows NT web server, using ASP scripts to communicate with a series of Microsoft Access databases. All interaction with HARRY is via a standard web browser and is therefore platform independent. Several JavaScripts are embedded within the HTML files downloaded to the client's web browser. These are used to check the number of words a child has written in a section and open up, and close, additional dialogue boxes. A cookie is written to the client's computer, after the story theme has been selected, which contains the story strategy that will be followed and this is used to store where the child is during the story should s/he, decide to leave finishing the writing for another occasion. When the child returns to
continue a story, the cookie is checked; this provides a track of where within the strategy the child is, and authentication of the child. However, it does require that the child uses the same computer to write his/her story. The child's story is stored within an Access database on the web server. Separate databases are used for the first (composing) stage and the second (editing) stage. Thus, it was possible to separately assess the progress made by a child during both the composing and editing stages. Within the story theme databases, prompts are stored which are displayed according to the strategy of the story used together with the child's response made in previous sections. These are taken from the databases by the ASP scripts running on the server, and converted into HTML for downloading to the client's web browser. Likewise, the child's response is stored in his/her database using ASP scripts.

3. Evaluation of the HARRY writing system upon children's written grammar and style

Four case studies are presented to indicate the effects of the HARRY writing system upon children's writing performance. The children involved in the study were randomly selected from a mixed ability class of 8/9-year-olds, attending a co-educational, state-funded primary school. Each child wrote two stories on the same theme: a control story (written with a cut-down version of the system presenting a prompt suggesting a story theme and an accompanying reply box, but no further assistance) and a story written with the full assistance of HARRY. The data was collected over five weeks. Each child was permitted by the school to use HARRY for two literacy lessons a week, and they were allowed as many lessons as they needed to complete each story. The functions of the full HARRY system were demonstrated to the children before they started writing their assisted story. They were instructed to always consult all of the help buttons when embarking on a new section, leaving open the help option they considered most useful. It was explained that they should revisit the other help boxes and try to follow all the advice before moving on to the next section. The children were instructed to work through all the editing suggestions in the order they were presented. The effects of the system upon the children's writing performance are analysed through a quantitative analysis of the stories they produced, illustrated by examples of words, phrases and sentences where appropriate.

A specially designed computer utility tool—CHECK TEXT—is used to provide the quantitative data concerning grammar and style features. A previous study in which quantitative analyses were performed upon a set of sample stories representing the range of ability levels associated with 11 year olds (Holdich, Holdich, & Chung, 2002) has demonstrated that CHECK TEXT distinguishes strengths and weaknesses in 12 aspects of children's written grammar and style. CHECK TEXT is used to provide quantitative analyses for the control stories and for each of the three stages of the HARRY assisted stories. The tool provides analyses of twelve features covering story length, punctuation (full stops and comma use), sentence construction (use of basic connectives and simple sentence starters) and vocabulary (variety and sophistication). The 23 features are:

1. The total length of the story in words (as a measure of the amount of detail included);
2. The percentage of different words used in the first 100 words (as an indication of the extent of a child's vocabulary resources);
3. The number of 'and's used as a percentage of the total words (as an indication of the frequency of very basic compound sentence constructions);
4. The basic connectives *but, so, then, because* used as a percentage of the total words (as an indication of the frequency of basic compound sentence constructions);
5. The percentage of sentences started simply with a pronoun or the definite article (as an indication of the frequency of basic sentence constructions);
6. Average words per sentence (as an indication of the variety of sentence lengths and types);
7. Number of different words with more than five characters as a percentage of total words (as an indication of sophisticated vocabulary);
8. Number of adverbs as a percentage of total words (as an indication of sophisticated vocabulary);
9. Common verbs used (*said, went, got, get, was, were*) as a percentage of total number of words (as an indication of simple vocabulary);
10. Total common words (all common verbs and basic connectives identified above) as a percentage of total number of words (as an indication of simple vocabulary);
11. Mean words per sentence (as an indication of the correct use of full stops);
12. Commas used as a percentage of mean sentence length, excluding commas used in lists (as an indication of the presence of clauses within complex sentences demarcated by commas).

As the significance of the scores calculated for the stories written by the children involved in this study is not obvious without reference to the scores calculated for the original sample stories (presented in Holdich et al., 2002) three assessment categories were determined—*poor, fair* and *good*. The assessment boundaries are presented in Table 2. The scores together with the *poor, fair* and *good* reports, form the basis of the grammar and style comparisons for the stories reported in this paper. The CHECK TEXT data is illustrated by examples of specific words and phrases.

<table>
<thead>
<tr>
<th>CHECK TEXT feature</th>
<th>Poor</th>
<th>Fair</th>
<th>Good</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of words</td>
<td>Less than 290 words</td>
<td>290–390 words</td>
<td>More than 390 words</td>
</tr>
<tr>
<td>Variety of words in first 100</td>
<td>Less than 61%</td>
<td>61–67%</td>
<td>More than 67%</td>
</tr>
<tr>
<td>Ands used to total words</td>
<td>More than 4.4%</td>
<td>2.6–4.4%</td>
<td>Less than 2.6%</td>
</tr>
<tr>
<td>Common connectives</td>
<td>More than 2%</td>
<td>1.5–2%</td>
<td>Less than 1.5%</td>
</tr>
<tr>
<td>Simple sentence starters</td>
<td>More than 50%</td>
<td>37–50%</td>
<td>Less than 37%</td>
</tr>
<tr>
<td>Average sentence length</td>
<td>More than 16 words</td>
<td>8–12 words</td>
<td>12–16 words</td>
</tr>
<tr>
<td>Number of words over five letters</td>
<td>Less than 13.5%</td>
<td>13.5–17%</td>
<td>More than 17%</td>
</tr>
<tr>
<td>Common verbs used to total words</td>
<td>More than 5.5%</td>
<td>4.2–5.5%</td>
<td>Less than 4.2%</td>
</tr>
<tr>
<td>Adverbs used to total words</td>
<td>Less than 0.7%</td>
<td>0.7–1.5%</td>
<td>More than 1.5%</td>
</tr>
<tr>
<td>Common words to total words</td>
<td>More than 11.5%</td>
<td>8.5–11.5%</td>
<td>Less than 8.5%</td>
</tr>
<tr>
<td>Mean words per sentence (use of full stops)</td>
<td>More than 18 words</td>
<td>14–18 words</td>
<td>8–14 words</td>
</tr>
<tr>
<td>Sentence length to commas ratio</td>
<td>More than 2</td>
<td>1–2</td>
<td>Less than 1</td>
</tr>
</tbody>
</table>
3.1. James

The CHECK TEXT scores for both stories (including each stage) are presented in Table 3. The 'good' reports for the control story and third stage of the HARRY assisted story are highlighted.

The CHECK TEXT scores for James’ control story reveal a strength in punctuating sentences with full stops (mean sentence length = 13.4 words). The scores reveal James' weakness is vocabulary, which is simple and unvaried (variety = 63%, common words = 15.4%, number of words > 5 letters = 12.3%, common verbs = 5.9%, adverbs = 0.2%). The lack of commas (sentence to comma ratio = 2.7) either indicates the presence of few complex sentences or incorrectly demarcated complex sentences. Closer examination of the text indicates that the majority of sentences are simple or compound constructions, suggesting that James is most secure with these basic sentence structures. James relies upon basic sentence connectives (total = 9.5%, ands = 4.2%, common connectives = 5.3%). CHECK TEXT indicates that James varies the way he starts sentences. Only one third (32.4%) of James' sentences begin with pronouns or the definite article. However, James also starts a third of sentences with the connectives 'So' and 'Then', not counted by CHECK TEXT. Adding the use of these basic connectives to start sentences to other simple sentence starters reveals how James starts two thirds of his sentences in a similar way, using the most basic of constructions.

CHECK TEXT recorded two more 'good' reports for the assisted story (final draft) than the control. The scores for James' HARRY assisted story indicate that vocabulary (variety and sophistication) is improved (variety = 69%, words > 5 letters = 16.2%, common verbs = 1.3%, common words = 8.7%). Adventurous words such as, *invisibility, exploring, obstacle, noticed, courtiers, retrieve, revived, clutched* are used. Sentence construction is also more varied. Sentences are started in more sophisticated ways (simple sentence starters = 22.9%) and fewer common connectives are used (2.6%) although there is a similar proportion of 'and's (4.7%). The higher number of words per sentence indicates a greater variety of sentence types. The presence of some complex constructions is indicated by the good sentence to comma ratio (0.7).

Table 3
CHECK TEXT scores and reports for James’ stories

<table>
<thead>
<tr>
<th>Feature</th>
<th>Control 1st stage</th>
<th>2nd stage</th>
<th>3rd Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of words</td>
<td>454 Good</td>
<td>560 Good</td>
<td>536 Good</td>
</tr>
<tr>
<td>Variety of words in first 100</td>
<td>63% Fair</td>
<td>65% Fair</td>
<td>72% Good</td>
</tr>
<tr>
<td>Ands used to total words</td>
<td>4.2% Fair</td>
<td>7.1% Poor</td>
<td>4.7% Poor</td>
</tr>
<tr>
<td>Common connectives</td>
<td>5.3% Poor</td>
<td>2.1% Poor</td>
<td>2.6% Poor</td>
</tr>
<tr>
<td>Simple sentence starters</td>
<td>32.4% Good</td>
<td>20.8% Good</td>
<td>19.4% Good</td>
</tr>
<tr>
<td>Average sentence length in words</td>
<td>13.4 Good</td>
<td>23.3 Poor</td>
<td>17.3 Poor</td>
</tr>
<tr>
<td>Number of words over five letters</td>
<td>12.3% Poor</td>
<td>13.4% Poor</td>
<td>15.9% Fair</td>
</tr>
<tr>
<td>Common verbs used to total words</td>
<td>5.9% Poor</td>
<td>2.7% Good</td>
<td>1.3% Good</td>
</tr>
<tr>
<td>Adverbs used to total words</td>
<td>0.2% Poor</td>
<td>0.2% Poor</td>
<td>0.4% Poor</td>
</tr>
<tr>
<td>Common words to total words</td>
<td>15.4% Poor</td>
<td>12% Poor</td>
<td>8.6% Fair</td>
</tr>
<tr>
<td>Mean words per sentence</td>
<td>13.4 Good</td>
<td>23.3 Poor</td>
<td>17.3 Fair</td>
</tr>
<tr>
<td>Sentence to comma ratio</td>
<td>2.7 Poor</td>
<td>1.8 Fair</td>
<td>0.9 Good</td>
</tr>
</tbody>
</table>
That fact that the composing prompts at the first stage did not cause James to use many more adventurous words is reflected in the CHECK TEXT scores. The scores for variety of vocabulary, adverbs and common words were similar to the control story. At the first stage, CHECK TEXT recorded a similar score to the control for 'long words' (13.4%) but this score was improved to 15.9% at the editing stage. James' average sentence length increased by 10 words per sentence between the control story and the first stage, indicating much poorer use of full stops. The percentage of ands used at the end of the first stage (7.1%), a Fig. 3% higher than the control story, indicated that James was also relying more heavily upon very basic sentence constructions. These worse scores were due to the difficulty James experienced with expanding sentences to include adjectives and descriptive phrases. His solution was to write long sentences, linking descriptions with the connective 'and', for example:

The ceiling is tiled and there are marble walls and a gold shining statues and a pool the size of a football pitch and in a locked room there is an invisabilete (invisibility) cloak (there are only three of them in the univers (universe).

At the editing stage, James improved his sentence constructions:

The ceiling is tiled. There are marble walls, a gold shining statue and a pool the size of a football pitch. In a locked room there is an invisabilete (invisibility) cloak (there are only three of them in the univers (universe).

After the editing stage, the percentage of ands dropped from 7.1 to 4.7%, a similar score to that achieved by the control story (4.2%). Although James had improved his sentence constructions considerably, the poor report for use of 'and' indicated the prevailing dependence upon basic sentence constructions. However, reducing the occurrences of the connective 'and' helped improve the score for variety of vocabulary, which increased by 7% at the second stage. Replacing some 'and's with a full stop also helped to improve his mean words per sentence from 23.3 to 17.3.

To summarise, with HARRY's assistance James improved upon the variety of words, used fewer basic words and more long words, demonstrated a greater variety of sentence structures and punctuated clauses within complex sentences more frequently with commas. However, reviewing and revising vocabulary choice and sentence structure during the first stage had a negative effect upon his use of full stops and the connective 'and'—a result consistent with Karmiloff-Smith's (1992) research, noted earlier, that children's attempts to improve their writing can result in a drop in quality. Although James improved upon these scores at the second stage, the reports he achieved for these features were worse for the HARRY assisted story than for the control.

3.2. Sophie

The CHECK TEXT scores for both stories (including each stage) are presented in Table 4. The 'good' reports for the control story and third stage of the HARRY assisted story are highlighted. The scores for Sophie's control story reveal a strength in vocabulary—both variety and sophistication—(variety = 76%, words > 5 letters = 16%, adverbs = 0.8%, common verbs = 4.3%,
common words = 8.5%) for example: 'surrounded, decided, insisted, normally, destroyed, trusted'. Her story shows evidence of the beginnings of mature sentence constructions (simple sentence starters = 18.2%, total basic connectives = 4.3%, of which 2.4% = the connective and). The story is reasonably detailed (376 words). CHECK TEXT reveals Sophie's weakness is in punctuation (average sentence length = 17.1 words, sentence to comma ratio = 2.8). By inserting full stops correctly in her text, her average sentence length is reduced to 8.2 words and sentence to comma ratio is improved to 0.7. Whilst the presence of commas indicates the presence of complex sentences (e.g. 'Not for me, I was too old'), the very low number of words per sentence indicates that Sophie writes using mostly simple sentences, although she varies the way she starts them (simple sentence starters = 10.9%).

CHECK TEXT awarded Sophie's HARRY assisted story (final draft) five more good reports than her control story. The HARRY assisted story is very detailed (663 words). Improvements have been made with vocabulary choice (variety = 78%, words > 5 letters = 18.3%, common verbs = 4.1%, common words = 8.3%, adverbs = 1.8%). Many sophisticated words are used such as 'interrupted, approached, gigantic, hurtled, muttered, whispered, bravely, proudly'. More, but not all sentences are correctly punctuated (mean sentence length = 16.2, sentence to comma ratio = 1.1). Closer examination of the text reveals evidence of more deliberate control with sentence structure—using simple and minor sentence structures for dramatic effect, for example, 'We came to a dead end...He understood us...They pounced'. Complex sentences containing several clauses are constructed, for example, 'Daniel was so excited that he crouched down and vanished down the hole before you could say stiganopithicus'. A weakness with punctuation is still evident however. There are many places where full stops (including question marks) and commas have been omitted, for example:

The weird creature came out of the cave. He was 10 feet high (high) he let out an oooohhhhhhhhhhhhh immediately (immediately) the wolves fled with fear (fear).

<table>
<thead>
<tr>
<th>Feature</th>
<th>Control</th>
<th>1st stage</th>
<th>2nd stage</th>
<th>3rd Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of words</td>
<td>376</td>
<td>658</td>
<td>676</td>
<td>663</td>
</tr>
<tr>
<td>Variety of words in first 100</td>
<td>76%</td>
<td>Good</td>
<td>79%</td>
<td>79%</td>
</tr>
<tr>
<td>Ands used to total words</td>
<td>2.4%</td>
<td>Good</td>
<td>3.5%</td>
<td>Fair</td>
</tr>
<tr>
<td>Common connectives</td>
<td>1.9%</td>
<td>Fair</td>
<td>1.7%</td>
<td>Fair</td>
</tr>
<tr>
<td>Simple sentence starters</td>
<td>18.2%</td>
<td>Good</td>
<td>22.2%</td>
<td>Good</td>
</tr>
<tr>
<td>Average sentence length in words</td>
<td>17.1</td>
<td>Poor</td>
<td>36.6</td>
<td>Poor</td>
</tr>
<tr>
<td>Number of words over five letters</td>
<td>16%</td>
<td>Fair</td>
<td>18.1%</td>
<td>Good</td>
</tr>
<tr>
<td>Common verbs used to total words</td>
<td>4.3%</td>
<td>Fair</td>
<td>4.7%</td>
<td>Fair</td>
</tr>
<tr>
<td>Adverbs used to total words</td>
<td>0.8%</td>
<td>Fair</td>
<td>1.7%</td>
<td>Good</td>
</tr>
<tr>
<td>Common words to total words</td>
<td>8.5%</td>
<td>Fair</td>
<td>9.9%</td>
<td>Fair</td>
</tr>
<tr>
<td>Mean words per sentence</td>
<td>17.1</td>
<td>Fair</td>
<td>36.6</td>
<td>Poor</td>
</tr>
<tr>
<td>Sentence to comma ratio</td>
<td>2.8</td>
<td>Poor</td>
<td>7.3</td>
<td>Poor</td>
</tr>
</tbody>
</table>
The first stage had a noticeably negative effect upon Sophie’s punctuation. Her CHECK TEXT score after the first stage for mean sentence length (36.6 words) was twice that of the control story (17.1), indicating much poorer use of full stops, and she used proportionally fewer commas to demarcate clauses than in the control story (sentence to comma ratio = 7.3 compared to 2.8 in the control). Reflecting about vocabulary seemed to have caused her to forget to punctuate her sentences. The editing suggestions at the second stage, helped Sophie improve her punctuation to a level similar to that demonstrated in the control story, but did not help her improve her punctuation sufficiently to achieve a ‘good’ report, as many sentences remained poorly punctuated.

To summarise, HARRY particularly helped Sophie improve upon her vocabulary choice (variety and sophistication). Comparison of the control story and the final draft of the HARRY assisted story indicates a lack of improvement in Sophie’s use of full stops. However, reviewing and revising vocabulary during the first stage had had a negative effect upon Sophie’s punctuation. Although Sophie improved her scores for punctuation considerably during the second stage, the improvement is not evident in the final score and report for use of full stops, when compared to her control story.

3.3. Tom

The CHECK TEXT scores for both stories (including each stage) are presented in Table 5. The ‘good’ reports for the control story and third stage of the HARRY assisted story are highlighted. The CHECK TEXT scores indicate that the control story is reasonably detailed (306 words). Tom has progressed from using the most basic of sentence connectives (number of ‘ands’ used = 2.3%), but relies quite heavily upon other basic connectives (common connectives = 4.2%). Nevertheless, Tom writes some mature complex sentence constructions (e.g. The king was suffering from a type of aneserier (sic) a kind of sickness that could kill you). Tom uses a reasonable variety of words (66%) and some of his vocabulary is sophisticated (words > 5 letters = 15%) such as: suffering, honour, informed, hurried, obstacle, complete, instincts, boulder, sprinted.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Control</th>
<th>1st stage</th>
<th>2nd stage</th>
<th>3rd Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Score</td>
<td>Score</td>
<td>Score</td>
<td>Score</td>
</tr>
<tr>
<td>Total number of words</td>
<td>306</td>
<td>1096</td>
<td>1099</td>
<td>1098</td>
</tr>
<tr>
<td>Variety of words in first 100</td>
<td>66%</td>
<td>76%</td>
<td>75%</td>
<td>73%</td>
</tr>
<tr>
<td>Ands used to total words</td>
<td>2.3%</td>
<td>4.1%</td>
<td>2.8%</td>
<td>2.7%</td>
</tr>
<tr>
<td>Common connectives</td>
<td>4.2%</td>
<td>3.3%</td>
<td>2%</td>
<td>2.2%</td>
</tr>
<tr>
<td>Simple sentence starters</td>
<td>40%</td>
<td>31.4%</td>
<td>29.5%</td>
<td>31%</td>
</tr>
<tr>
<td>Average sentence length in words</td>
<td>30.6</td>
<td>21.5</td>
<td>13.9</td>
<td>12.6</td>
</tr>
<tr>
<td>Number of words over five letters</td>
<td>15%</td>
<td>16.5%</td>
<td>18.8%</td>
<td>17.7%</td>
</tr>
<tr>
<td>Common verbs used to total words</td>
<td>6.2%</td>
<td>4.1%</td>
<td>2.3%</td>
<td>2.3%</td>
</tr>
<tr>
<td>Adverbs used to total words</td>
<td>0%</td>
<td>0.5%</td>
<td>0.7%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Common words to total words</td>
<td>12.7%</td>
<td>11.5%</td>
<td>7.1%</td>
<td>7.2%</td>
</tr>
<tr>
<td>Mean words per sentence</td>
<td>30.6</td>
<td>21.5</td>
<td>13.9</td>
<td>12.6</td>
</tr>
<tr>
<td>Sentence to comma ratio</td>
<td>6.1</td>
<td>21.5</td>
<td>0.4</td>
<td>0.3</td>
</tr>
</tbody>
</table>
CHECK TEXT reveals weaknesses in punctuation (mean number of words per sentence = 30.6, sentence to comma ratio = 6.1) and vocabulary. Although there is a reasonable variety of words and some sophisticated vocabulary, there is a high proportion of simple words (common words = 12.7%, common verbs = 6.2%) and the writing lacks adverbs (0%).

The CHECK TEXT scores indicate that improvements have been made in the HARRY assisted story (final draft) to all aspects apart from use of the connective ‘and’. The HARRY assisted story achieved nine ‘good’ reports, whereas the control achieved just one. The assisted story is very detailed (1098 words). Vocabulary is sophisticated such as ‘sparkling, ordered, retrieve, decided, spotted, performances, culprit, pursuit, panicked, produced’ etc. (variety = 73%, words > 5 letters = 17.7%, common words = 7.2%, common verbs = 2.3%, adverbs = 0.7%). The writing contains a variety of sentence structures (simple sentence starters = 31%). For example, ‘It was clearly a magician who lived there because he had robes on.’ And ‘By order of King Robert, somebody has to search (search) for the fabled healing stone’. Sentences are mostly accurately demarcated with full stops (mean words per sentence = 12.6) and commas (sentence to commas ratio = 0.3). A reliance upon common connectives (common connectives used = 2.2%) is the only remaining weakness.

Many improvements were initiated during the first stage, with further improvements being made at the second stage. However, there were exceptions to this pattern. Tom’s dependence upon the connective ‘and’ and lack of commas increased during the first stage. Tom improved upon both aspects during the second stage, but whilst the ‘good’ report achieved for comma use reflected the considerable improvement that had been made, the final report for use of the connective ‘and’ was worse than for the control story.

3.4. Stephanie

The CHECK TEXT scores for both stories (including each stage) are presented in Table 6. The ‘good’ reports for the control story and third stage of the HARRY assisted story are highlighted.

<table>
<thead>
<tr>
<th>Table 6</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CHECK TEXT scores and reports for Stephanie’s stories</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Feature</th>
<th>Control</th>
<th>1st stage</th>
<th>2nd stage</th>
<th>3rd Stage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of words</td>
<td>570 Good</td>
<td>871 Good</td>
<td>866 Good</td>
<td>866 Good</td>
</tr>
<tr>
<td>Variety of words in first 100</td>
<td>59% Poor</td>
<td>60% Poor</td>
<td>60% Poor</td>
<td>59% Poor</td>
</tr>
<tr>
<td>Ands used to total words</td>
<td>4.7% Poor</td>
<td>3.8% Fair</td>
<td>3.3% Fair</td>
<td>3.2% Fair</td>
</tr>
<tr>
<td>Common connectives</td>
<td>11.1% Good</td>
<td>0.7% Good</td>
<td>0.5% Good</td>
<td>0.4% Good</td>
</tr>
<tr>
<td>Simple sentence starters</td>
<td>31.1% Good</td>
<td>20.5% Good</td>
<td>21.5% Good</td>
<td>24.1% Good</td>
</tr>
<tr>
<td>Average sentence length in words</td>
<td>12.7 Good</td>
<td>12.8 Good</td>
<td>11.4 Fair</td>
<td>10.8 Fair</td>
</tr>
<tr>
<td>Number of words over five letters</td>
<td>10.5% Poor</td>
<td>11.8% Poor</td>
<td>13.4% Poor</td>
<td>13.1% Poor</td>
</tr>
<tr>
<td>Common verbs used to total words</td>
<td>4.9% Fair</td>
<td>4.6% Good</td>
<td>1.4% Good</td>
<td>1.5% Good</td>
</tr>
<tr>
<td>Adverbs used to total words</td>
<td>1.6% Good</td>
<td>0.7% Fair</td>
<td>0.7% Fair</td>
<td>0.8% Fair</td>
</tr>
<tr>
<td>Common words to total words</td>
<td>10.7% Fair</td>
<td>9% Fair</td>
<td>5.1% Good</td>
<td>5% Good</td>
</tr>
<tr>
<td>Mean words per sentence</td>
<td>12.7 Good</td>
<td>12.8 Good</td>
<td>11.4 Good</td>
<td>10.8 Good</td>
</tr>
<tr>
<td>Sentence to comma ratio</td>
<td>4.2 Poor</td>
<td>2.7 Poor</td>
<td>0.4 Good</td>
<td>0.3 Good</td>
</tr>
</tbody>
</table>
The CHECK TEXT scores indicate that Stephanie’s strength in the control story is with sentence construction and with punctuating sentences with full stops. She understands the structure of a complete sentence as she positions full stops accurately (mean words per sentence = 12.7 words). There is some variation in sentence structure (average sentence length = 12.7 words, simple sentence starters = 31.1%). There is evidence of some complex sentence constructions, for example ‘They travelled east until the sun set then they set up camp’, although she does not display their grammatical structure with commas (sentence to comma ratio = 4.2). The scores indicate a general weakness with vocabulary, both variety (59%) and sophistication (number of words > 5 letters = 10.5%, common words = 10.7%, common verbs = 4.9%) although she makes good use of adverbs (1.6%) for example, *immediately, finally, probably, honestly*. Stephanie relies on the connective ‘and’ (4.7%) suggesting a predominance of compound sentences.

The HARRY assisted story (final draft) is much more detailed (866 words) demonstrating fewer simple words (common words = 5%, common verbs = 1.5% although words > 5 letters = 13.1% and adverbs = 0.8%), but no improvement in variety (variety = 59%). Sentence construction is also improved. Sentences are started in a greater variety of ways (24.1%) and fewer basic connectives are used (ands = 3.2%, common connectives = 0.4%). Although the average sentence length of 10.8 words indicates the presence of many short simple sentences, the sentence to comma ratio of 0.3, indicates some are mature complex constructions. These include: ‘Just as they started quarrelling, an old lady came by and asked them what was wrong… Suddenly, there was a flash of lightning followed by two enormous rumbles’.

To summarise, with the control story, Stephanie demonstrated an understanding of sentence construction—she punctuated sentences accurately with full stops, although she relied upon the connective ‘and’, indicating a predominance of basic compound sentences. She demonstrated a weakness with vocabulary—both variety and sophistication. The HARRY assisted story demonstrated improved sentence construction, use of commas and fewer simple words, although the scores for variety and sophistication of vocabulary remained consistently poor. Stephanie’s limited improvement with vocabulary is consistent with Shaughnessy’s (1977) research quoted earlier, which indicated the stubborn and individually different limits to the pace at which words enter pupils’ active vocabulary.

4. Conclusion

Teachers usually provide children with advice and feedback in order to assist them to revise, and edit. Providing comments is a time consuming task, requiring knowledge of significant weaknesses to focus upon and strategies that will result in appreciable improvements. Analysis of the stories written by the four children involved in this study suggests that HARRY offered effective revision strategies, and systematically and successfully guided the children through the processes of detection, identification and correction of grammar and style weaknesses. The HARRY assisted stories were better than the controls. They contained more adventurous and varied vocabulary, evidenced by a higher percentage of words longer than five letters, a higher percentage of different words used in the first 100 and a lower percentage of common words. Sentence constructions were more sophisticated, evidenced by a lower percentage of common connectives, particularly the connective ‘and’, and a lower percentage of sentences starting with
pronomouns and the definite article. Full stops were used more accurately, evidenced by fewer words per sentence and more commas were used to demarcate the clauses in complex sentences, evidenced by a smaller ratio of words to commas. However, comparisons of the control and assisted stories (final stage) sometimes indicated that the children apparently either made no improvement in some specific features or that performance in some aspects deteriorated with HARRY's assistance. That the process of improvement in some grammar and stylistic features can result in an apparent drop in the quality of others, presents a problem when evaluating the efficiency of a system, using a wholly numerical approach. A holistic approach, such as case study, provides greater insight into the process of challenging children to write using more adventurous and sophisticated vocabulary and sentence construction etc. Reflecting upon HARRY's revising suggestions at the first stage resulted in improvements being made to some features, such as vocabulary, but the process sometimes caused poorer performance in others, such as punctuation and use of the connective 'and'. This effect was caused either by the child trying to implement writing techniques without understanding how to apply them successfully, or by the child paying more attention to certain aspects, causing the child to forget to pay attention to others. However, many of the features that deteriorated during the composing/revising stage were improved upon at the editing stage. Separate analysis of the stages reveals the idiosyncratic pattern of improvement exhibited by each child.

References


